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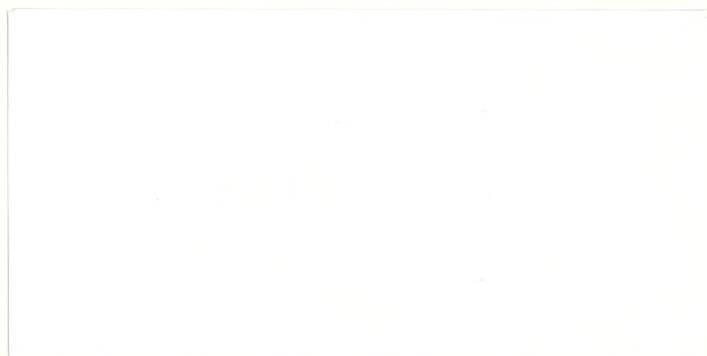
U-a/U-b

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MONTHLY PROGRESS REPORT NO. 10  
for the period December 1-31, 1976  
to  
ENVIRONMENTAL PROTECTION AGENCY  
REGION VIII

1860 Lincoln St., Suite 900  
Denver, CO 80203

Contract No. 68-01-1946

by

Aeromet, Inc.  
Box FF  
Norman, OK 73070

Utah U-a/U-b Tract





## 1.0 INTRODUCTION

Low level temperature and wind data were collected for December, 1976 at Casper, Wyoming; the Shell Oil Co. Colorado C-b Tract 25 miles west of Rio Blanco, Colorado; Craig, Colorado; Escalante and Hanksville, Utah; Rock Springs, Wyoming; and the U-a/U-b Tract 5 miles south of Bonanza, Utah. The data collection was made using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were made  $\frac{1}{2}$  hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 500 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft. AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built-in Rustrak strip chart recorder and the temperature was recorded within the range from  $-50^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The Monthly Progress Report is divided into seven parts, one corresponding to each of the seven field sites. The collected temperature and wind data are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary section. However, the obvious errors sometimes found in the recorded azimuth and elevation angles are corrected without mention. For example, the sequence of azimuth angles . . . 76.6, 75.3, 47.8, 73.8 . . . can be corrected without ambiguity. The more ambiguous errors are brought to the attention of the reader if editing has been performed, otherwise, the data are left as recorded and the filtering is left to the individual user. An example is the wind profile for Hanksville on 06/29/76 at 1300 MST found in the Monthly Progress Report No. 4. The azimuth angles starting 30 seconds after the launch and incremented by the same are as follows . . . 109.0, 110.0, 110.0, 281.0, 280.0, 282.0 . . . , while the corresponding elevation angles are as follows, . . . 60.0, 57.6, 58.7, 58.6, 52.7, 44.3 . . . . The wind speed and direction change dramatically over the interval as can be seen in the report since these data were not edited.





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII  
1860 LINCOLN STREET  
DENVER, COLORADO 80203

RECEIVED

March 11, 1977

Mr. Pete Rutledge  
Area Oil Shale Supervisor  
Mesa Federal Savings & Loan  
131 North 6th, Suite 300  
Grand Junction, CO 81501

MAR 11 1977  
7 31 AM  
AREA 8  
DENVER, CO

Dear Pete:

Enclosed are copies of progress report #10 for our Aeromet contract regarding data collection during December. The contract as it stands now has been modified to extend at least to August 1, 1977. We have additional funds budgeted to carry the program beyond that date, however. As in the past, by copy of this memo, I am transmitting copies to Rees Madsen and George Fosdick for their respective tracts.

Data collection was poor for C-b again in November - 28% recovery of temperature data and 16% recovery of wind data. However, a change in the observer and relocation of the site to the PL Ranch should result in better data collection represented in the next report.

Data collection for the third month of operation on UaUb was excellent. Temperature and wind data collection was 97%.

Sincerely,

A handwritten signature in blue ink, appearing to read "Terry L. Thoem".

Terry L. Thoem  
Office of Energy Activities

cc: George Fosdick  
Rees Madsen

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## 2.0 DATA SUMMARY

### 2.1 Utah U-a/U-b Tract Field Summary

Mo major problems were experienced during the month of December. The reader should make note of the consistent northeast wind found at approximately 500 m AGL. This phenomenon is found in wind data for previous months. It is felt to be caused by terrain effects.

The observer attempted 100% of the scheduled pilot balloon launches resulting in 97% recovery of the temperature and wind data. The 3% loss in data resulted from equipment malfunctions.



## 2.2 Mixing Layer Height

The average mixing layer height was computed for the morning and afternoon based on the morning and 1400L temperature soundings. The balloon release  $\frac{1}{2}$  hour after sunrise is near enough to the minimum temperature to assume the correctness of the calculated mixing layer heights. The afternoon balloon release is generally not at the time of maximum heating and the user of the mixing layer height data must be aware that minor changes in the calculated values can be expected. Without equipping the field sites with minimum/maximum thermometers the extrapolation of the afternoon data can not be justified in establishing a data base for statistical analysis. The approximation of the afternoon maximum temperature would be a "calculated guess" for there are: 1) local effects which are to be determined and would be filtered out with extrapolation, 2) mountain effects which alter the lower 1500m (e.g. downslope effects), and 3) meteorological effects which can alter the expected change in the sounding (e.g. advection, moisture, etc.).

It is felt that to better define the mixing layer height that a variety of "heat island" effects should be viewed. The rigorous method would be to define 15 "heat island" effects ranging from 0 to 14°C and let the user decide which would best serve his needs. However, for these analysis 0°, +5° and +10° "heat island" effects are calculated and listed for the morning and afternoon soundings in the table Average Mixing Layer Height.

The symbol N/D means that no mixing layer height was defined and sfc is the abbreviation for surface.

## 2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.





### 3.0 DATA PROCESSING

#### 3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthognal components of the wind. The wind profile is also punched on computer cards at 30 second intervals.

The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and punched on cards. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce for each site a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G.C., 1974: "Climatological Data on Atmospheric Stability in the United States" Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce for each site a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the  $\Delta T/100m$  criterion is met but the wind speed criterion is not met, then the

STABILITY CLASS	$\Delta T$ (°C/100m)	WIND SPEED
A	<-1.9	<2
B	-1.9 - -1.7	<5
C	-1.7 - -1.5	<6
D	-1.5 - -0.5	ALL SPEEDS
E	-0.5 - 1.5	<5
F	>1.5	<3

wind data are checked against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example,



if the  $\Delta T/100\text{m}$  value is 1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a  $\Delta T$  value of 1.7°C/100 m and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.



## Punched Output

The punched output from the bivariate frequency distribution calculations include a header card as illustrated below.

MONTH: MARCH      YEAR: 1976.      CASPER      SFC TO 500 METERS

[illegible]



and the punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

STABILITY CLASS	NUMBER CODE
A	1
B	2
C	3
D	4
E	5
F	6
Independent of Stability	7

The station I.D. numbers are as follows:

STATION	I.D. NUMBER
Casper, Wyoming	1
Colorado C-b Tract	2
Craig, Colorado	3
Escalante, Utah	4
Hanksville, Utah	5
Rock Springs, Wyoming	6
Utah U-a/U-b Tract	7

The month and season number codes are as follows:

MONTH	1-12
SEASON	13 = DJF
	14 = MAM
	15 = JJA
	16 = SON
ANNUAL	17





PILOT BALLOON SUMMARY  
Utah U-a/U-b Tract  
December, 1976

December 2 0718

1354

December 4 0723

1359

December 6 0717

Temperature values were interpolated over the interval from 3 1/4 to 11 3/4 minutes.

1356

December 8 0727

1355

December 10 0724

1352

December 12 0726  
Temperature values were interpolated over the interval from 2 1/2 to 10 1/4 minutes.  
Light wind speeds were the cause of the large variation in wind directions.

1350

December 14 0725

Temperature values were interpolated over the interval from 7 to 11 1/2 minutes.

1357

December 16 0730

Temperature values were interpolated over the interval from 8 to 13 1/2 minutes.

1402



PILOT BALLOON SUMMARY  
Utah U-a/U-b Tract  
December, 1976

December 18 0726

1355

December 20 0727 Temperature values were interpolated over the interval from 6 1/4 to 17 minutes.

1350

December 22 0729

1351

December 24 0735 Balloon was lost in the clouds after 9 minutes. No temperature after about 2 minutes due to difficulty with sonde.

1354

December 26 0733

1351

December 28 0734

1400

December 30 0736

1354 No wind data due to difficulty with tape recorder.



# AVERAGE MIXING LAYER HEIGHT

Utah U-a/U-b Tract

December, 1976

## HEIGHTS IN METERS

DATE	MORNING			AFTERNOON		
	0°	+5°	+10°	0°	+5°	+10°
2	sfc	100m	200m	50m	600m	850m
4	sfc	150m	300m	250m	700m	1150m
6	50m	250m	1000m	500m	1450m	2650m
8	sfc	150m	250m	100m	650m	950m
10	sfc	50m	500m	600m	1650m	1950m
12	sfc	150m	250m	300m	600m	1000m
14	sfc	100m	200m	250m	750m	1400m
16	sfc	100m	200m	100m	500m	750m
18	sfc	50m	200m	sfc	550m	650m
20	sfc	100m	250m	150m	650m	1000m
22	sfc	150m	250m	500m	750m	1500m
24	sfc	250m		sfc	500m	2950m
26	sfc	50m	150m	50m	600m	1000m
28	sfc	50m	150m	200m	600m	1900m
30	sfc	150m	200m	500m	1250m	2050m



## CLOUD COVER AND SIGNIFICANT WEATHER

Utah U-a/U-b Tract

December, 1976

<u>DATE</u>	<u>MORNING</u>	<u>AFTERNOON</u>
2	scattered	scattered
4	overcast, cirrus	overcast, cirrus
6	broken	clear
8	scattered	clear
10	scattered	clear
12	clear	clear
14	broken	clear
16	broken	broken
18	scattered	scattered
20	clear	clear
22	overcast, cirrus	overcast, cirrus
24	overcast	scattered
26	scattered	scattered
28	clear	clear
30	overcast	overcast





\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3455  
ATE 12/02/76 TIME 07:18MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	1448.	1.19	0.0

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3452  
ATE 12/02/76 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	1053.	0.24	-1.47

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3450  
ATE 12/04/76 TIME 07:23MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	762.	1.28	0.0

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3456  
ATE 12/04/76 TIME 13:59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
259.	1135.	0.16	-1.09

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3454  
ATE 12/06/76 TIME 07:17MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	724.	0.41	0.0

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3719  
ATE 12/06/76 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	38.	0.50	0.0



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*****
UTAH UAUB                      ELEV 1585 METERS          SOUNDING ID 3712
DATE 12/08/76    TIME 07:27MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE      INV TOP      INV DT/DZ      DT/DZ BELOW INV
METERS AGL    METERS AGL    (DEG C)/100M  (DEG C)/100M
    0.         1257.         0.84          0.0

*****
UTAH UAUB                      ELEV 1585 METERS          SOUNDING ID 3714
DATE 12/08/76    TIME 13:55MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE      INV TOP      INV DT/DZ      DT/DZ BELOW INV
METERS AGL    METERS AGL    (DEG C)/100M  (DEG C)/100M
   114.        991.         0.17         -0.65

*****
UTAH UAUB                      ELEV 1585 METERS          SOUNDING ID 3716
DATE 12/10/76    TIME 07:24MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE      INV TOP      INV DT/DZ      DT/DZ BELOW INV
METERS AGL    METERS AGL    (DEG C)/100M  (DEG C)/100M
    0.         229.         3.16          0.0

*****
UTAH UAUB                      ELEV 1585 METERS          SOUNDING ID 3718
DATE 12/10/76    TIME 13:52MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE      INV TOP      INV DT/DZ      DT/DZ BELOW INV
METERS AGL    METERS AGL    (DEG C)/100M  (DEG C)/100M
   285.        323.         0.24         -1.42

*****
UTAH UAUB                      ELEV 1585 METERS          SOUNDING ID 3713
DATE 12/12/76    TIME 07:25MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE      INV TOP      INV DT/DZ      DT/DZ BELOW INV
METERS AGL    METERS AGL    (DEG C)/100M  (DEG C)/100M
    0.         1600.        0.80          0.0

*****
UTAH UAUB                      ELEV 1585 METERS          SOUNDING ID 3715
DATE 12/12/76    TIME 13:50MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

INV BASE      INV TOP      INV DT/DZ      DT/DZ BELOW INV
METERS AGL    METERS AGL    (DEG C)/100M  (DEG C)/100M
   142.        907.         0.42         -1.86

*****

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\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3717

TE 12/14/76 TIME 07:25MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	1029.	1.16	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3705

TE 12/14/76 TIME 13:57MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
76.	1042.	0.15	-2.87

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3707

TE 12/16/76 TIME 07:30MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	1502.	1.02	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3709

TE 12/16/76 TIME 14:02MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
76.	838.	0.46	-0.92

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3711

TE 12/18/76 TIME 07:26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	724.	2.38	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3710

TE 12/18/76 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	811.	0.52	0.0



\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3708

TE 12/20/76 TIME 07:27NST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	2000.	0.65	0.0

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3706

TE 12/20/76 TIME 13:50NST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	1069.	0.10	0.0

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3704

TE 12/22/76 TIME 07:29NST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	1638.	0.86	0.0

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3696

TE 12/22/76 TIME 13:51NST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
143.	181.	0.26	-1.94

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3698

TE 12/24/76 TIME 07:35NST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE INSUFFICIENT DATA WITHIN 2000M OF THE SFZ

\*\*\*\*\*  
UTAH UA08 ELEV 1585 METERS SOUNDING ID 3700

TE 12/24/76 TIME 13:54NST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	38.	4.72	0.0





\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3702

TE 12/26/76 TIME 07:33MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	838.	1.79	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3703

TE 12/26/76 TIME 13:51MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	805.	0.43	-2.24

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3701

TE 12/28/76 TIME 07:34MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	305.	4.03	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3699

TE 12/28/76 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	38.	0.0	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3697

TE 12/30/76 TIME 07:36MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	876.	1.36	0.0

\*\*\*\*\*  
UTAH UAUB ELEV 1585 METERS SOUNDING ID 3857

TE 12/30/76 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
384.	651.	0.0	-1.24







MONTH: DECEMBER YEAR: 1976. UTAH UAUB QFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 1 SOUNDINGS FROM A SAMPLE OF 30 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: DECEMBER YEAR: 1976. UTAH UAUH 9FC TO 500 METERS

### NORMALIZED FREQUENCY DISTRIBUTION

[illegible]

RELATIVE FREQUENCY OF OCCURRENCE OF THE B STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM	0.0
0.0	0.0
0.1	0.1
0.2	0.2
0.3	0.3
0.4	0.4
0.5	0.5
0.6	0.6
0.7	0.7
0.8	0.8
0.9	0.9
1.0	1.0

A TOTAL OF 1 SOUNDINGS FROM A SAMPLE OF 30 SOUNDINGS DID NOT HAVE 500 '4 OF TEMP AND WIND DATA





MONTH: DECEMBER      YEAR: 1976.      UTAH VAUH      SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-15	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE C      STABILITY CLASS IS      0.0

RELATIVE FREQUENCY OF CALM      0.0

A TOTAL OF 1 SOUNDINGS FROM A SAMPLE OF 30 SOUNDINGS DID NOT HAVE  
500 M OF TEMP AND WIND DATA



MONTH: DECEMBER YEAR: 1976. UTAH UAUH 4FC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.20	0.0	0.0	0.0	0.0	0.0	0.0	0.20
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.60	0.0	0.0	0.0	0.0	0.0	1.5	0.60
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.20	0.0	0.0	0.0	0.0	0.0	2.0	0.20
AVG SPEED	1.3	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	1.00	0.0	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.17

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 1 SOUNDINGS FROM A SAMPLE OF 30 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: DECEMBER YEAR: 1976. UTAH UAUH SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
NNE	0.08	0.0	0.0	0.0	0.0	0.0	0.0	0.08
NF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.08	0.0	0.0	0.0	0.0	3.0	0.08
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.08	0.0	0.0	0.0	0.0	3.2	0.08
SSE	0.0	0.15	0.0	0.0	0.0	0.0	3.0	0.15
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.08	0.08	0.0	0.0	0.0	0.0	0.0	0.15
NW	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0
NNW	0.46	0.0	0.0	0.0	0.0	0.0	1.8	0.46
AVG SPEED	1.7	3.5	0.0	0.0	0.0	0.0		0.0
TOTAL	0.62	0.38	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE E STABILITY CLASS IS 0.45

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 1 SOUNDINGS FROM A SAMPLE OF 30 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: DECEMBER      YEAR: 1976.      UTAH UAUH      DEC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.18	0.0	0.0	0.0	0.0	0.0	0.3	0.18
SSE	0.09	0.0	0.0	0.0	0.0	0.0	1.3	0.09
SSE	0.27	0.0	0.0	0.0	0.0	0.0	1.3	0.27
S	0.09	0.0	0.0	0.0	0.0	0.0	1.6	0.09
SSW	0.27	0.0	0.0	0.0	0.0	0.0	1.4	0.27
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.09	0.0	0.0	0.0	0.0	0.0	0.0	0.09
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.1	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	1.00	0.0	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE F STABILITY CLASS IS 0.38

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 1 SOUNDINGS FROM A SAMPLE OF 30 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA





MONTH: DECEMBER YEAR: 1976. UTAH UAUB QFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.03
NNE	0.03	0.0	0.0	0.0	0.0	0.0	0.9	0.0
NF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.03	0.0	0.0	0.0	0.0	3.0	0.3
ESE	0.07	0.03	0.0	0.0	0.0	0.0	0.3	0.07
SSE	0.03	0.07	0.0	0.0	0.0	0.0	2.1	0.17
S	0.14	0.0	0.0	0.0	0.0	0.0	2.3	0.17
SSW	0.03	0.0	0.0	0.0	0.0	0.0	0.5	0.03
SW	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.14
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.17	0.03	0.0	0.0	0.0	0.0	1.7	0.21
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	0.24	0.0	0.0	0.0	0.0	0.0	1.0	0.24
AVG SPEED	1.4	3.5	0.0	0.0	0.0	0.0		0.0
TOTAL	0.83	0.17	0.0	0.0	0.0	0.0		1.00

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 1 SOUNDINGS FROM A SAMPLE OF 30 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3455

12/02/76

TIME 07:18MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-14.84		0.0		2.1	135.
0.5	* 76	1661	-11.06		11.33	14.26		
1.0	150	1735	-9.11	5.73	8.15	11.07	0.6	137.
2.0	300	1885	-5.75	3.36	2.31	5.24	0.6	236.
3.7	415.	2000.	-4.97	0.01	4.41	7.34	0.2	230.
5.3	500	2085.	-3.54	2.20	3.44	6.37	0.3	244.
6.0	515.	2500.	-0.13	3.42	0.38	3.31	5.0	197.
7.3	1415.	3000.	-2.46	2.58	-0.56	2.37	5.0	278.
8.8	2415.	4000.	-1.47	-3.93	-0.38	2.55		
9.2	3415.	5000.	-9.08	-7.61	-2.91	0.02		
9.8	4415.	6000.	-14.54	-5.45	-3.34	-0.41		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3455

12/02/76

TIME 07:18MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-1.5	1.5	2.1	135.
0.5	76.	1661.	-0.9	2.1	2.3	156.
1.0	152.	1737.	-0.3	0.4	0.5	136.
2.0	305.	1890.	0.0	1.4	1.4	180.
3.0	457.	2042.	0.5	0.3	0.6	240.
4.0	515.	2118.	0.2	0.0	0.3	228.
5.0	533.	2118.	0.1	0.1	0.2	333.
6.0	610.	2195.	0.4	0.1	0.4	252.
7.0	686.	2271.	1.6	0.2	1.6	276.
8.0	762.	2347.	1.6	0.1	1.6	272.
9.0	838.	2423.	0.5	0.9	1.0	209.
10.0	914.	2499.	1.3	0.0	5.1	195.
11.0	991.	2576.	1.4	0.8	5.0	197.
12.0	1067.	2652.	1.9	0.7	5.1	202.
13.0	1143.	2728.	3.2	3.5	4.7	222.
14.0	1219.	2804.	4.9	4.9	7.7	259.
15.0	1295.	2880.	7.4	2.2	7.4	253.
16.0	1372.	2957.	7.3	0.3	7.4	268.
17.0	1448.	3033.	5.5	0.6	5.5	273.
18.0	1524.	3109.	4.6	0.9	4.6	281.
19.0	1600.	3185.	4.0	1.3	4.2	288.
20.0	1676.	3261.	4.0	1.6	4.2	292.
21.0	1753.	3338.	3.3	2.4	4.0	306.
22.0	1829.	3414.	4.0	2.8	4.8	305.
23.0			4.5	2.2	5.2	313.



UTAH VALLEY

ELEV 1585 METERS

SOUNDING ID 3452

E 12/02/76

TIME 13:54MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 3000'	D/T LARGE	WS M/S	WD DEG
	SFC		7.27		0.0			
1.0	150.	1735	7.53	0.75	-1.85	1.08	2.6	270.
2.0	300.	1885	7.35	0.23	-1.45	4.72	1.9	309.
2.7	415.	2000.	5.15	0.44	-3.70	0.77	2.9	341.
3.2	500.	2085.	5.00	1.12	-0.19	2.74	1.9	346.
5.3	915.	2500.	2.58	3.00	0.57	3.29	1.2	226.
6.1	1015.	3000.	2.20	2.16	4.23	7.16	8.7	191.
5.6	2415.	4000.	5.11	1.32	-2.04	0.89	11.9	266.
1.9	3415.	5000.	10.51	1.53	-0.38	5.31		
5.2	4415.	6000.	14.48	3.90	-2.68	0.25		

UTAH VALLEY

ELEV 1585 METERS

SOUNDING ID 3452

E 12/02/76

TIME 13:54MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	2.6	0.0	2.6	270.
0.5	76.	1661.	1.6	0.0	1.6	270.
1.0	152.	1737.	1.4	1.1	1.9	310.
1.5	229.	1814.	1.0	1.1	1.1	333.
2.0	305.	1890.	0.9	1.2	0.9	342.
2.5	381.	1966.	0.6	1.1	0.2	345.
3.0	457.	2041.	0.2	1.1	0.4	349.
3.5	534.	2117.	0.2	1.1	0.8	16.
4.0	610.	2193.	1.6	1.1	0.2	313.
4.5	687.	2269.	0.9	1.1	0.5	310.
5.0	763.	2345.	0.5	1.1	0.5	175.
5.5	840.	2421.	1.0	1.1	0.0	187.
6.0	916.	2497.	1.0	1.1	0.1	192.
6.5	992.	2573.	3.3	1.1	0.9	202.
7.0	1069.	2649.	5.5	1.1	0.5	212.
7.5	1145.	2725.	5.0	1.1	0.7	221.
8.0	1221.	2801.	7.1	1.1	0.2	239.
8.5	1298.	2877.	9.1	1.1	0.6	250.
9.0	1374.	2953.	11.3	1.1	0.9	266.
9.5	1450.	3029.	14.7	1.1	1.3	266.
10.0	1527.	3105.	15.1	1.1	1.1	266.
10.5	1603.	3181.	15.6	1.1	0.6	269.
11.0	1680.	3257.	13.7	1.1	0.7	271.
11.5	1756.	3333.	12.4	1.1	0.4	270.
12.0	1833.	3410.	11.6	1.1	0.0	277.





UTAH UA4H

ELEV 1545 METERS

SOUNDING ID 3450

TE 12/04/76 TIME 07:23 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LARGE	W/S M/S	WD DEG
	SFC		-9.08		0.0		2.1	135.
1.0	150.	1735.	-14.08	4.10	7.68	10.61	0.5	114.
2.0	300.	1885.	-12.26	2.72	4.56	7.49	1.4	191.
2.7	415.	2000.	-10.13	1.93	2.46	5.39	0.8	111.
3.3	500.	2055.	-6.34	0.66	0.38	3.51	0.6	163.
6.0	915.	2500.	-10.03	0.37	0.19	2.74	5.3	199.
9.3	1415.	3000.	-10.32	0.29	0.19	1.03	0.9	235.
5.8	2415.	4000.	-16.62	1.30	1.31	0.52		
2.4	3415.	5000.	-13.64	1.02	1.94	0.02		
8.0	4415.	6000.	-21.58	1.94	1.99	0.06		

UTAH UA08

ELEV 1585 METERS

SOUNDING ID 3450

E 12/04/76 TIME 07:23 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.5	1.5	2.1	135.
0.5	75.	1661.	1.0	0.9	1.1	145.
1.0	152.	1737.	1.0	0.2	0.5	115.
1.5	229.	1814.	1.0	1.1	1.1	160.
2.0	305.	1890.	1.0	1.3	1.4	193.
2.5	381.	1966.	1.0	0.7	0.9	140.
3.0	457.	2042.	1.0	0.2	0.7	74.
3.5	533.	2118.	0.4	0.3	0.5	233.
4.0	610.	2195.	0.9	1.3	1.6	215.
4.5	686.	2271.	0.2	1.0	1.2	211.
5.0	762.	2347.	0.2	0.3	0.4	196.
5.5	838.	2423.	1.3	0.3	0.5	194.
6.0	914.	2499.	1.7	0.0	0.3	199.
6.5	991.	2575.	2.0	0.4	0.6	214.
7.0	1067.	2652.	2.1	0.4	0.5	247.
7.5	1143.	2728.	0.5	1.1	0.6	200.
8.0	1219.	2804.	0.6	3.0	0.4	242.
8.5	1295.	2880.	0.3	4.4	0.2	225.
9.0	1372.	2957.	0.3	4.2	0.7	232.
9.5	1448.	3033.	0.9	3.6	0.9	239.
10.0	1524.	3109.	1.4	3.1	1.1	246.
10.5	1601.	3186.	0.4	3.2	1.0	243.
11.0	1677.	3262.	0.3	4.0	0.9	227.
11.5	1753.	3338.	0.2	4.7	0.7	215.
12.0	1830.	3415.	0.5	0.2	0.7	202.





UTAH UAH8 ELEV 1585 METERS SOUNDING ID 3456  
 12/04/76 TIME 13:59 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	L/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.05		0.0		1.5	270.
0.8	150.	1735.	3.93	-2.12	-2.80	0.13	2.3	275.
1.5	300.	1835.	3.84	-0.09	-0.75	3.68	1.3	295.
2.5	415.	2000.	2.84	-0.77	-0.19	3.11	1.0	311.
3.1	500.	2065.	3.38	0.31	0.94	3.86	0.8	49.
5.8	915.	2500.	3.98	0.60	0.37	3.30	3.2	188.
9.1	1415.	3000.	3.03	-0.75	0.93	1.99	7.3	206.
5.6	2415.	4000.	-2.53	-5.75	12.09	0.83		
11.4	3415.	5000.	-9.77	-7.24	11.36	1.57		
18.0	4415.	6000.	-15.74	-5.07	0.59	3.52		

UTAH UAH8 ELEV 1585 METERS SOUNDING ID 3456  
 12/04/76 TIME 13:59 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.5	0.0	1.5	270.
0.5	76.	1661.	2.3	0.0	2.3	259.
1.0	152.	1767.	2.4	0.3	2.4	277.
1.5	250.	1844.	1.1	0.3	1.2	284.
2.0	335.	1920.	1.1	0.7	1.3	304.
2.5	411.	1996.	0.0	0.9	1.0	325.
3.0	487.	2072.	0.0	0.6	0.6	300.
3.5	563.	2148.	1.4	0.5	1.5	290.
4.0	640.	2225.	1.0	0.4	1.0	294.
4.5	716.	2301.	0.6	0.3	0.7	242.
5.0	792.	2377.	1.6	0.2	2.7	216.
5.5	868.	2453.	0.7	0.0	2.3	199.
6.0	944.	2529.	0.1	0.0	3.7	181.
6.5	1021.	2606.	0.7	0.5	3.5	187.
7.0	1097.	2682.	1.0	0.5	3.5	193.
7.5	1173.	2758.	2.0	0.8	4.6	198.
8.0	1249.	2834.	2.2	0.8	4.3	200.
8.5	1325.	2910.	2.5	0.5	7.7	207.
9.0	1402.	2987.	3.2	0.5	7.3	206.
9.5	1478.	3063.	3.0	0.4	7.5	203.
10.0	1554.	3139.	3.3	0.4	7.3	207.
10.5	1630.	3215.	2.4	0.0	7.4	199.
11.0	1706.	3291.	2.6	0.3	8.7	197.
11.5	1783.	3366.	3.0	0.3	9.5	203.
12.0	1859.	3444.	4.0	0.3	10.5	207.



UTAH DATA

ELEV 1585 METERS

SOUNDING ID 3454

DATE 12/06/76 TIME 07:17 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	O/T STD	O/T 300M	O/T LAPSE	WS M/S	WD DEG
	SFC		-9.08		0.0		2.1	135.
1.0	150	1735	-9.53	2.55	2.32	5.25	4.0	148.
2.0	300	1885	-9.53	0.0	1.16	4.08	4.1	108.
2.7	415	2000	-9.63	-0.09	-1.16	1.77	2.8	116.
3.3	500	2085	-9.72	-0.10	0.0	2.93	2.2	135.
4.0	615	2200	-10.09	-1.37	-2.32	0.60	5.6	11.
9.3	1415	3000	-11.06	-2.96	-1.56	1.37	15.8	347.
15.7	2415	4000	-17.85	-6.79	-1.78	1.15		
22.3	3415	5000	-22.69	-4.84	-1.00	1.93		

UTAH DATA

ELEV 1585 METERS

SOUNDING ID 3454

DATE 12/06/76 TIME 07:17 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585	1.5	1.5	2.1	135.
0.5	76.	1661	1.7	3.8	4.1	156.
1.0	152.	1737	2.1	3.4	4.0	148.
1.5	229.	1814	2.9	1.5	3.3	118.
2.0	305.	1890	2.9	1.2	4.1	108.
2.5	381.	1966	3.00	1.1	3.2	110.
3.0	457.	2042	1.9	1.2	2.3	123.
3.5	533.	2118	1.2	1.7	2.1	144.
4.0	610.	2195	1.7	0.5	1.7	106.
4.5	686.	2271	2.00	0.0	2.2	68.
5.0	762.	2347	1.9	1.2	3.7	31.
5.5	838.	2423	2.00	1.4	4.6	26.
6.0	914.	2499	2.00	1.5	5.6	6.
6.5	990.	2575	2.5	1.7	6.3	343.
7.0	1070.	2655	2.5	1.0	9.4	351.
7.5	1147.	2732	2.5	10.7	10.8	358.
8.0	1223.	2808	2.0	10.6	10.8	349.
8.5	1299.	2884	2.0	14.4	14.6	350.
9.0	1375.	2960	2.1	15.9	16.2	349.
9.5	1451.	3036	2.4	16.8	17.3	346.
10.0	1528.	3113	3.0	16.1	18.4	351.
10.5	1604.	3189	3.1	20.1	20.7	346.
11.0	1680.	3265	3.3	17.7	18.7	340.
11.5	1756.	3341	7.6	18.0	19.5	337.
12.0	1832.	3417	8.1	17.6	19.4	335.



UTAH DAUR FLEV 1585 METERS SOUNDING ID 3719  
 E 12/06/76 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T SDUM	D/T LAPSE	AS F/S	WD DEG
	SFC		5.58		0.0		2.1	270.
1.0	150.	1735.	4.45	-1.13	-3.72	-0.79	1.1	256.
1.8	300.	1885.	2.65	-1.60	-3.75	-0.82	0.8	172.
2.4	415.	2000.	1.79	-0.84	-3.38	-0.45	0.5	200.
2.9	500.	2085.	0.85	-0.96	-2.64	0.29	0.6	195.
3.6	915.	22500.	-1.28	-2.13	-1.52	1.41	2.7	231.
4.9	1415.	23000.	-3.41	-2.13	-1.34	1.59	6.8	334.
5.1	2415.	4000.	-9.77	-0.37	-0.27	1.96		
11.5	3415.	5000.	-11.06	-1.28	-5.85	-2.92		
17.5	4415.	6000.	-16.04	-4.99	0.0	2.95		

UTAH DAUR FLEV 1585 METERS SOUNDING ID 3719  
 E 12/06/76 TIME 13:56MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP F/S	V-COMP F/S	WIND SPEED F/S	WIND DIR DEG
0.0	0.	1585.	2.1	0.0	2.1	270.
0.5	76.	1661.	1.1	0.5	1.2	246.
1.0	152.	1737.	1.0	0.3	1.1	256.
1.5	238.	1823.	0.1	0.5	0.6	195.
2.0	335.	1920.	-0.3	0.9	0.9	158.
2.5	437.	2022.	0.2	0.4	0.4	212.
3.0	521.	2106.	0.1	0.6	0.7	190.
3.5	597.	2182.	-0.5	1.0	1.1	152.
4.0	673.	2258.	-0.0	1.3	1.3	179.
4.5	750.	2335.	0.4	1.0	1.1	205.
5.0	826.	2411.	1.0	1.6	1.9	213.
5.5	902.	2487.	2.1	1.7	2.7	231.
6.0	978.	2563.	2.0	1.6	2.5	232.
6.5	1054.	2639.	1.9	0.8	2.0	248.
7.0	1131.	2716.	2.4	0.7	2.5	254.
7.5	1207.	2792.	2.2	0.6	2.3	255.
8.0	1283.	2868.	2.4	1.5	2.8	263.
8.5	1359.	2944.	2.3	3.0	4.3	327.
9.0	1435.	3020.	3.1	7.1	7.7	337.
9.5	1512.	3097.	4.0	8.0	9.4	320.
10.0	1588.	3173.	4.9	9.0	11.0	334.
10.5	1664.	3249.	4.3	10.0	10.9	337.
11.0	1740.	3325.	4.2	10.5	11.4	336.
11.5	1816.	3401.	4.7	10.0	11.0	335.
12.0	1896.	3481.	14.6	2.5	14.8	280.





UTAH DAIR

ELEV 1585 METERS

SOUNDING ID 3712

12/08/76 TIME 07:27 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (ASL)	TEMP DEG C	D/T STD	L/T SHUM	D/T LAPSE	WS M/S	WD DEG
	SFC		-9.87		0.0		1.5	135.
1.0	150.	1735.	-5.95	3.92	2.26	11.18	0.5	95.
2.0	300.	1885.	-1.30	4.65	4.56	7.49	2.1	167.
3.7	415.	2000.	-0.61	0.50	1.33	4.25	2.4	207.
3.3	500.	2085.	-0.23	0.57	0.95	3.87	3.2	223.
6.0	915.	2500.	-0.13	0.10	0.19	2.74	5.9	215.
6.3	1415.	3000.	-0.22	0.09	0.95	1.98	9.6	225.
5.3	2415.	4000.	-2.34	2.12	0.76	3.69		
5.4	3415.	5000.	-6.43	4.09	1.93	1.00		
3.9	4415.	6000.	-14.74	8.31	2.36	0.57		

UTAH DAIR

ELEV 1585 METERS

SOUNDING ID 3712

12/08/76 TIME 07:27 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (ASL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.1	1.1	1.5	135.
0.5	75.	1661.	1.2	1.2	1.2	169.
1.0	150.	1737.	1.4	1.4	0.4	92.
2.0	300.	1814.	1.7	1.6	0.6	154.
3.0	450.	1890.	1.4	1.1	2.1	168.
3.5	481.	1966.	1.6	1.1	2.3	201.
4.5	571.	2042.	1.5	1.2	3.7	225.
5.3	610.	2118.	1.6	1.5	4.9	210.
5.6	686.	2195.	1.9	1.4	4.8	203.
6.5	762.	2271.	1.8	1.0	4.4	204.
7.5	838.	2347.	1.6	1.0	5.5	208.
8.5	914.	2423.	1.3	1.0	5.9	214.
9.5	991.	2500.	1.5	1.0	7.3	232.
10.6	1067.	2576.	1.5	1.0	7.0	237.
11.4	1143.	2652.	1.8	1.0	7.0	230.
12.1	1199.	2708.	1.7	1.0	9.5	231.
12.9	1275.	2784.	1.7	1.0	9.5	232.
13.7	1351.	2860.	1.9	1.3	9.4	227.
14.4	1427.	2936.	1.8	1.1	9.8	224.
15.2	1503.	3012.	1.9	1.1	9.8	224.
16.0	1579.	3088.	1.7	1.7	10.2	229.
16.5	1624.	3133.	1.7	1.7	10.1	240.
17.5	1724.	3233.	1.7	1.1	10.1	246.
18.0	1800.	3309.	1.4	1.1	12.5	





UTAH DAUB

ELEV 1585 METERS

SOUNDING ID 3714

E 12/08/76 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		10.25		0.0		3.6	270.
1.0	150	1735	9.78	-0.47	0.36	3.29	5.8	268.
2.0	300	1885	9.79	-0.90	-1.83	1.10	4.3	295.
2.7	415.	2000.	8.39	-1.11	-1.28	1.64	3.0	336.
3.3	500	2065	8.21	-0.47	0.55	3.48	2.7	158.
3.0	915.	2500.	10.99	-2.33	-0.91	2.02	11.8	169.
3.3	1415.	3000.	7.93	-2.80	-3.49	-0.57	13.4	182.
5.5	2415.	4000.	5.39	-2.54	0.0	2.93		
1.9	3415.	5000.	2.26	-3.13	-0.94	1.99		
3.4	4415.	6000.	-1.57	-3.83	-4.76	-1.83		

UTAH DAUB

ELEV 1585 METERS

SOUNDING ID 3714

E 12/08/76 TIME 13:55MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	3.6	0.0	3.6	270.
0.5	76.	1661.	4.8	1.9	5.1	248.
1.0	152.	1737.	5.8	0.2	5.8	268.
1.5	229.	1814.	5.4	-1.6	5.6	287.
2.0	305.	1890.	3.8	-1.9	4.2	296.
2.5	381.	1966.	1.3	-2.4	3.0	324.
3.0	457.	2042.	0.5	-3.1	3.1	351.
3.5	533.	2118.	0.5	-2.4	2.4	7.
4.0	610.	2195.	1.5	-2.7	3.1	29.
4.5	686.	2271.	1.1	-1.7	2.0	328.
5.0	762.	2347.	5.0	0.0	5.3	249.
5.5	838.	2423.	1.0	0.3	9.4	170.
6.0	914.	2499.	2.0	1.6	11.8	169.
6.5	991.	2576.	2.0	12.3	12.5	169.
7.0	1067.	2652.	2.0	13.5	13.8	168.
7.5	1143.	2728.	2.1	13.5	13.7	171.
8.0	1219.	2804.	1.4	13.4	13.4	174.
8.5	1295.	2880.	0.8	14.4	14.4	177.
9.0	1372.	2957.	0.1	14.2	14.2	180.
9.5	1452.	3037.	0.7	12.7	12.8	183.
10.0	1534.	3119.	1.9	14.0	14.1	188.
10.5	1610.	3195.	3.6	12.5	13.0	196.
11.0	1687.	3272.	4.7	12.8	13.6	200.
11.5	1779.	3364.	6.2	12.5	14.0	206.
12.0	1884.	3469.	8.3	14.2	16.5	210.



UTAH DAUB

ELEV 1585 METERS

SOUNDING ID 3716

12/10/76

TIME 07:24MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		19.06		0.0		1.5	135.
0.0	150	1735	12.26	6.82	4.20	7.12	2.1	111.
2.0	300	1885	12.24	0.02	1.52	1.41	3.1	83.
4.0	450	2000	13.21	0.58	1.29	0.64	4.4	75.
6.0	600	2085	13.77	0.95	1.91	1.02	5.2	69.
8.0	750	2500	14.53	2.75	0.36	1.96	6.1	22.
10.0	900	3000	14.87	3.34	0.78	2.15	11.2	24.
12.0	1050	4000	13.24	3.37	0.0	2.93		
14.0	1200	5000	16.24	3.00	2.17	0.76		
16.0	1350	6000	23.61	7.37	2.00	0.93		

UTAH DAUB

ELEV 1585 METERS

SOUNDING ID 3716

12/10/76

TIME 07:24MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	11.1	1.1	1.5	135.
2.5	75.	1661.	11.5	3.3	3.6	135.
5.0	150.	1737.	12.0	0.7	3.1	110.
7.5	225.	1814.	12.0	0.0	2.0	90.
10.0	300.	1890.	13.2	0.4	3.2	83.
12.5	375.	1966.	14.0	0.9	4.1	78.
15.0	450.	2042.	14.6	1.6	4.8	71.
17.5	525.	2118.	15.1	2.2	5.5	67.
20.0	600.	2195.	16.4	3.0	6.3	56.
22.5	675.	2272.	13.8	2.7	5.6	54.
25.0	750.	2349.	14.0	3.1	6.1	53.
27.5	825.	2426.	13.3	3.9	5.1	60.
30.0	900.	2502.	12.2	5.8	6.2	21.
32.5	975.	2578.	12.4	7.0	7.5	18.
35.0	1050.	2654.	12.0	8.0	8.5	11.
37.5	1125.	2731.	14.0	8.0	9.1	19.
40.0	1200.	2807.	14.4	10.6	11.5	22.
42.5	1275.	2883.	14.6	11.4	12.5	22.
45.0	1350.	2959.	14.8	11.5	12.5	23.
47.5	1425.	3035.	14.3	9.2	10.2	25.
50.0	1500.	3112.	13.9	8.4	9.2	25.
52.5	1575.	3188.	13.3	7.7	8.8	25.
55.0	1650.	3264.	13.3	8.2	8.8	22.
57.5	1725.	3340.	13.1	7.8	8.4	21.
60.0	1800.	3416.	11.5	8.2	8.4	10.



UTAH UADR                      ELEV 1585 METERS                      SOUNDING ID 3718  
 E 12/10/76    TIME 13:52 MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.34		0.0		1.5	315.
0.8	150	1735	3.59	-2.75	-4.30	-1.37	0.6	293.
1.3	300	1885	2.35	-1.23	-10.56	-2.37	0.7	273.
2.4	415	2000	1.98	-0.37	-2.26	0.67	1.4	210.
2.9	500	2085	1.14	-0.25	-2.26	0.67	2.7	285.
3.6	615	2500	-0.32	-1.25	-3.02	-0.10	4.3	338.
4.5	1415	3000	-4.48	-4.25	-5.26	1.97	4.5	4.
5.1	2415	4000	-4.77	0.18	1.53	4.46		
1.6	3415	5000	-8.59	3.21	2.90	0.02		
7.6	4415	6000	-14.84	-6.25	-1.18	1.75		

UTAH UADR                      ELEV 1585 METERS                      SOUNDING ID 3718  
 E 12/10/76    TIME 13:52 MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585	1.1	-1.1	1.5	315.
0.5	76.	1661	0.7	-0.3	0.8	291.
1.0	192.	1777	0.5	-0.2	0.5	295.
1.5	285.	1870	0.2	-0.3	0.6	339.
2.0	361.	1946	0.2	-1.0	1.0	12.
2.5	437.	2022	1.4	-0.5	1.5	290.
3.0	513.	2098	2.2	-0.7	2.9	285.
3.5	589.	2174	3.1	-1.8	3.6	300.
4.0	665.	2251	3.8	-2.3	3.6	310.
4.5	742.	2327	2.7	-2.3	3.9	315.
5.0	818.	2403	1.6	-3.1	3.6	331.
5.5	894.	2479	1.6	-4.0	4.3	339.
6.0	970.	2555	1.8	-4.0	4.4	335.
6.5	1047.	2632	1.3	-3.9	4.5	339.
7.0	1123.	2708	0.5	-4.4	4.5	353.
7.5	1205.	2791	0.2	-5.5	3.5	357.
8.0	1285.	2873	0.3	-4.4	4.4	4.
8.5	1364.	2957	0.3	-4.4	5.4	4.
9.0	1446.	3073	0.6	-5.2	6.9	7.
9.5	1564.	3149	0.0	-5.5	10.7	11.
10.0	1600	3225	0.0	-5.5	10.0	23.
10.5	1716.	3301	0.0	-4.9	8.4	15.
11.0	1799.	3378	0.0	-4.9	5.3	21.
11.5	1869.	3454	0.0	-4.9	5.1	17.
12.0	1945.	3530	0.0	-4.9		





UTAH DAUB

ELEV 1585 METERS

SOUNDING ID 3713

E 12/12/76 TIME 07:26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-15.84		0.0		0.5	135.
1.0	150	1735	-9.68	3.96	8.15	11.07	0.7	149.
1.0	* 152	1737	-9.67		8.15	11.07		
2.0	300	1885	-4.79	5.10	5.38	8.31	1.1	227.
2.7	415	?2000.	-3.99	0.79	0.96	3.88	1.2	110.
3.3	? 500	2055	-3.71	0.29	0.76	3.69	1.3	38.
6.0	915	?2500.	-2.64	1.07	0.76	3.69	1.0	345.
8.3	1415	?3000.	-1.48	1.16	0.57	3.50	5.6	343.
9.8	2415	4000.	-3.21	-1.74	-0.76	2.16		
20.2	3415	5000.	-9.67	-5.46	-1.36	1.57		
28.3	4415	6000.	-15.34	-5.66	-3.55	-0.62		

UTAH DAUB

ELEV 1585 METERS

SOUNDING ID 3713

E 12/12/76 TIME 07:26MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	-0.4	0.4	0.5	135.
0.5	76.	1661.	-0.7	0.5	0.9	125.
1.0	152.	1737.	-0.3	0.6	0.7	150.
1.5	229.	1814.	-0.3	1.2	1.3	168.
2.0	305.	1890.	0.6	0.7	1.1	231.
2.5	381.	1966.	-0.4	0.9	1.0	157.
3.0	457.	2042.	-1.1	1.0.8	1.4	52.
3.5	533.	2118.	-0.6	1.1	1.2	27.
4.0	610.	2195.	-0.1	1.0.5	0.6	14.
4.5	686.	2271.	-0.5	1.0.0	0.5	90.
5.0	762.	2347.	-0.3	0.2	0.4	123.
5.5	838.	2423.	-1.2	1.0.3	1.3	75.
6.0	914.	2499.	0.2	1.0	1.0	347.
6.5	991.	2576.	-0.3	1.0.1	0.3	66.
7.0	1067.	2652.	-1.4	0.2	1.4	98.
7.5	1143.	2728.	-1.7	1.6	2.4	46.
8.0	1219.	2804.	-1.1	2.0	2.3	28.
8.5	1295.	2880.	0.2	2.9	2.9	355.
9.0	1372.	2957.	2.5	5.7	6.2	336.
9.5	1448.	3033.	1.2	5.5	5.6	348.
0.0	1524.	3109.	2.3	7.8	7.2	342.
0.5	1600.	3185.	1.6	7.7	7.9	348.
1.0	1675.	3261.	1.7	8.6	8.8	349.
1.5	1759.	3344.	1.1	8.1	8.2	352.
2.0	1835.	3420.	-0.7	7.5	7.5	5.





UTAH DA08

ELEV 1585 METERS

SOUNDING ID 3715

E 12/12/76 TIME 13:15:00ST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	OAT STD	WAT 3004	WAT LAPSE	AS F/S	WD DEG
	SFC		5.58		0.0		1.5	315.
1.8	150	1735	2.93	-2.65	-1.31	1.62	2.3	288.
1.8	300	1885	2.57	-0.35	-1.31	4.24	2.2	160.
2.5	415	2000	3.59	0.43	0.93	3.86	1.1	38.
3.1	500	2085	3.87	0.37	1.49	4.42	0.7	332.
5.8	915	2500	5.87	2.40	1.93	2.00	4.3	101.
9.1	1415	3000	3.50	-1.69	2.43	0.50	2.9	17.
15.8	2415	4000	2.68	-1.90	1.50	1.43		
17.8	3415	5000	-5.16	-7.23	2.49	0.43		
	4415	6000	-13.54	-8.39	2.35	0.58		

UTAH DA08

ELEV 1585 METERS

SOUNDING ID 3715

E 12/12/76 TIME 13:50:00ST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.1	-1.1	1.5	315.
0.5	75.	1661.	2.0	-1.2	2.0	288.
1.0	153.	1738.	2.1	-1.2	2.4	298.
1.5	229.	1814.	2.7	-1.2	2.3	341.
2.0	305.	1890.	2.2	-1.1	2.1	360.
2.5	381.	1966.	1.0	-1.0	1.1	323.
3.0	457.	2042.	0.4	-1.0	0.8	332.
3.5	533.	2118.	0.1	-1.0	0.3	333.
4.0	609.	2194.	0.0	-1.1	0.1	335.
4.5	685.	2270.	0.0	-1.1	0.1	335.
5.0	761.	2346.	1.0	-1.5	1.6	355.
5.5	837.	2422.	1.8	-1.9	3.0	725.
6.0	913.	2498.	1.4	-1.1	4.3	105.
6.5	989.	2574.	1.1	-1.1	4.3	90.
7.0	1065.	2650.	1.2	-1.6	4.3	100.
7.5	1141.	2726.	1.0	-1.5	3.7	84.
8.0	1217.	2802.	1.0	-1.0	2.5	84.
8.5	1293.	2878.	1.0	-1.0	2.1	28.
9.0	1369.	2954.	1.0	-1.0	2.0	15.
9.5	1445.	3030.	1.1	-1.1	2.0	18.
10.0	1521.	3106.	1.0	-1.0	2.0	13.
10.5	1597.	3182.	1.0	-1.0	2.0	321.
11.0	1673.	3258.	1.0	-1.0	2.1	321.
11.5	1749.	3334.	1.0	-1.0	2.1	320.
12.0	1825.	3410.	1.0	-1.0	2.1	320.
12.5	1901.	3486.	1.0	-1.0	2.1	320.
13.0	1977.	3562.	1.0	-1.0	2.1	320.
13.5	2053.	3638.	1.0	-1.0	2.1	320.
14.0	2129.	3714.	1.0	-1.0	2.1	320.
14.5	2205.	3790.	1.0	-1.0	2.1	320.
15.0	2281.	3866.	1.0	-1.0	2.1	320.
15.5	2357.	3942.	1.0	-1.0	2.1	320.
16.0	2433.	4018.	1.0	-1.0	2.1	320.
16.5	2509.	4094.	1.0	-1.0	2.1	320.
17.0	2585.	4170.	1.0	-1.0	2.1	320.
17.5	2661.	4246.	1.0	-1.0	2.1	320.
18.0	2737.	4322.	1.0	-1.0	2.1	320.
18.5	2813.	4398.	1.0	-1.0	2.1	320.



UTAH DA08 ELEV 1565 METERS SOUNDING ID 3717  
 12/14/76 TIME 07:25 PST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	W/T STD	W/T SURF	W/T LAPSE	WS M/S	WD DEG
	SFC		-13.85		0.0		1.5	135.
1.0	150	1755	-13.75	5.10	10.80	15.73	1.6	135.
2.0	300	1815	-14.82	3.93	4.20	7.13	1.8	169.
2.7	415	2000.	-12.55	2.82	3.79	6.72	1.1	204.
3.3	495	2080.	-11.93		1.70	4.63		
3.3	500	2085	-11.93	0.84	1.14	4.16	0.6	211.
4.0	915	2500.	-11.93	0.0	0.76	2.17	4.8	252.
4.3	1415	23080.	-13.55	1.63	1.14	1.79	6.1	41.
5.7	2415	3100.	-12.55	4.64	1.55	1.38		
2.3	3415	5000.	-13.55	3.75	3.12	0.20		
2.7	4415	6000.	-14.25	6.10	1.78	1.14		

UTAH DA08 ELEV 1565 METERS SOUNDING ID 3717  
 12/14/76 TIME 07:25 PST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1565.	-1.1	1.1	1.5	135.
0.5	76.	1651.	-1.2	1.2	1.7	135.
1.0	152.	1737.	-1.1	1.1	1.6	135.
1.5	229.	1814.	-0.4	1.9	1.9	169.
2.0	305.	1890.	-0.6	1.7	1.8	150.
2.5	381.	1966.	-0.1	1.3	1.3	175.
3.0	457.	2042.	-0.7	0.5	0.9	232.
3.5	533.	2118.	-0.1	0.4	0.4	190.
4.0	610.	2195.	-0.5	0.2	0.5	110.
4.5	686.	2271.	-0.1	1.0	1.0	175.
5.0	762.	2347.	1.0	1.3	1.7	215.
5.5	838.	2423.	3.1	2.5	4.0	232.
6.0	914.	2499.	4.8	1.5	4.8	252.
6.5	991.	2576.	3.4	1.1	3.4	269.
7.0	1067.	2652.	1.2	0.8	1.2	277.
7.5	1143.	2728.	0.1	1.8	1.8	175.
8.0	1219.	2804.	0.4	4.2	4.2	174.
8.5	1295.	2880.	2.8	4.2	5.5	150.
9.0	1372.	2957.	3.0	3.2	5.9	57.
9.5	1448.	3033.	3.0	5.5	6.2	29.
10.0	1524.	3109.	2.4	7.3	7.3	19.
10.5	1600.	3185.	1.5	8.0	8.4	11.
11.0	1676.	3261.	1.5	9.0	9.1	350.
11.5	1753.	3338.	1.3	9.9	9.0	351.
12.0	1829.	3414.	0.5	7.3	5.5	355.



UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3705

E 12/14/76 TIME 13:57MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		7.27		0.0		1.5	315.
0.9	150	1735	5.23	-2.05	-0.37	2.56	1.7	291.
1.9	300	1885	4.56	-0.67	-2.03	0.90	2.2	312.
2.6	415	2000.	4.57	-0.28	0.0	2.93	2.1	299.
3.2	500	2085	4.30	0.02	0.55	3.48	0.8	260.
5.9	915	2500.	4.76	0.46	0.74	3.66	2.9	201.
8.9	1415	3000.	3.07	-1.69	-0.37	2.56	4.2	177.
5.3	2415	4000.	0.82	-3.89	-0.38	2.55		
1.6	3415	5000.	-7.37	-6.56	-2.11	0.82		
7.8	4415	6000.	-13.57	-6.19	-2.14	0.78		

UTAH UAUB

ELEV 1585 METERS

SOUNDING ID 3705

E 12/14/76 TIME 13:57MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.1	-1.1	1.5	315.
0.5	76.	1661.	1.4	-0.3	1.5	258.
1.0	165.	1750.	1.6	-0.8	1.8	298.
1.5	242.	1827.	1.7	-1.4	2.2	309.
2.0	318.	1903.	1.6	-1.6	2.3	313.
2.5	394.	1979.	2.1	-1.3	2.5	302.
3.0	470.	2055.	0.9	-0.3	0.9	291.
3.5	546.	2131.	0.3	0.4	0.5	211.
4.0	623.	2208.	1.6	2.1	2.7	217.
4.5	699.	2284.	1.8	1.4	2.3	234.
5.0	775.	2360.	2.3	1.1	2.5	244.
5.5	851.	2436.	1.2	2.8	3.1	203.
6.0	927.	2512.	1.0	2.6	2.8	201.
6.5	1004.	2589.	1.7	3.6	4.0	205.
7.0	1080.	2665.	0.9	5.2	5.3	190.
7.5	1167.	2752.	0.7	5.2	5.3	188.
8.0	1272.	2857.	-1.2	4.7	4.8	165.
8.5	1353.	2938.	-0.4	5.2	5.2	175.
9.0	1429.	3014.	-0.2	4.0	4.0	177.
9.5	1505.	3090.	0.4	3.3	3.3	187.
10.0	1595.	3180.	1.2	2.3	2.6	208.
10.5	1671.	3256.	1.7	0.4	1.7	258.
11.0	1747.	3332.	3.9	-2.6	4.7	304.
11.5	1824.	3409.	5.5	-5.6	7.8	316.
12.0	1900.	3485.	5.2	-6.1	8.0	320.
12.5	1976.	3561.	3.8	-1.4	4.0	290.





UTAH U408

ELEV 1585 METERS

SOUNDING ID 3707

E 12/16/76 TIME 07:30\*ST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	O/T STD	O/T 300M	O/T LAPSE	WS M/S	WD DEG
	SFC		-14.44		0.0		2.6	135.
1.0	150.	1735.	-13.01	5.43	11.06	13.98	4.8	155.
2.0	300.	1885.	-15.35	3.66	2.50	5.43	3.5	170.
2.7	415.	2000.	-14.19	1.07	4.02	6.94	2.4	144.
3.3	500.	2085.	-12.95	1.34	3.44	6.36	2.0	146.
6.0	915.	2500.	-10.03	2.91	1.89	4.82	5.3	200.
9.3	1415.	3000.	-11.63	0.00	0.76	3.65	4.7	252.
*17.0	3375.		-2.74		0.0	2.93		
15.8	2415.	4000.	-1.79	1.82	-1.13	1.30		
2.4	3415.	5000.	-1.89	-2.68	-1.14	1.79		
9.0	4415.	6000.	-4.72	5.64	-1.74	1.19		

UTAH U408

ELEV 1585 METERS

SOUNDING ID 3707

E 12/16/76 TIME 07:30\*ST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1555.	-1.8	1.8	2.6	135.
1.5	75.	1651.	-14.0	4.3	5.9	137.
3.0	152.	1737.	-11.9	4.3	4.7	156.
4.5	229.	1814.	-11.6	4.3	4.6	160.
6.0	305.	1890.	-10.5	3.4	3.5	170.
7.5	381.	1966.	-11.0	2.0	2.2	155.
9.0	457.	2042.	-11.9	1.7	2.5	132.
10.5	533.	2118.	-10.6	1.4	1.5	158.
12.0	610.	2195.	-10.1	1.5	1.5	175.
13.5	686.	2271.	-10.4	2.0	2.0	192.
15.0	762.	2347.	-10.4	2.3	2.4	170.
16.5	838.	2423.	-10.6	3.7	3.7	169.
18.0	914.	2499.	-11.0	5.9	6.3	169.
19.5	991.	2576.	-11.9	5.7	5.9	114.
21.0	1067.	2652.	-14.4	5.8	5.6	130.
22.5	1143.	2728.	-15.4	5.9	5.1	252.
24.0	1219.	2804.	-15.3	5.3	5.5	269.
25.5	1295.	2880.	-14.3	4.0	5.8	237.
27.0	1372.	2957.	-14.2	2.4	4.8	240.
28.5	1448.	3033.	-14.5	0.8	4.6	261.
30.0	1524.	3109.	-15.5	1.0	5.6	260.
31.5	1600.	3185.	-18.3	1.1	8.6	262.
33.0	1676.	3261.	-19.8	1.3	9.8	262.
34.5	1753.	3338.	-11.4	0.0	11.4	270.
36.0	1829.	3414.	-12.5	-1.6	12.7	277.



UTAH UAUB      ELEV 1585 METERS      SOUNDING ID 3709  
 TE 12/16/76    TIME 14:02MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		5.58		0.0		3.1	315.
1.0	150	1735	4.64	-0.94	-0.19	2.74	2.6	274.
2.0	300	1885	4.18	-0.17	-0.93	2.00	2.8	324.
2.7	415.	2000.	4.07	0.36	-2.05	4.97	2.8	198.
3.3	500	2085	5.29	0.75	5.75	8.68	2.4	29.
4.0	* 609	2194	6.99		0.74	3.67		
6.0	915.	2500.	7.46	2.27	-0.37	2.56	4.0	219.
9.3	1415.	3000.	6.90	-0.66	-0.37	2.56	1.6	158.
15.8	2415.	4000.	6.05	-0.85	-2.23	0.70		
22.3	3415.	5000.	0.34	-5.22	-1.32	1.61		
28.6	4415.	6000.	-4.96	-5.80	-4.79	1.86		

UTAH UAUB      ELEV 1585 METERS      SOUNDING ID 3709  
 TE 12/16/76    TIME 14:02MST    ASCENT RATE 500 FPM    DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	2.2	-2.2	3.1	315.
0.5	76.	1661.	1.9	-0.4	2.0	258.
1.0	152.	1737.	2.6	-0.2	2.6	275.
1.5	229.	1814.	2.5	-1.7	3.1	304.
2.0	305.	1890.	1.6	-2.3	2.8	325.
2.5	381.	1966.	0.6	-2.8	2.9	347.
3.0	457.	2042.	-0.6	-2.5	2.6	13.
3.5	533.	2118.	-1.5	-1.7	2.3	42.
4.0	610.	2195.	-0.6	-0.5	0.8	51.
4.5	686.	2271.	-0.3	-0.4	0.5	38.
5.0	762.	2347.	1.4	-0.9	1.7	303.
5.5	838.	2423.	3.3	0.6	3.3	260.
6.0	914.	2499.	2.5	3.1	4.0	219.
6.5	991.	2576.	0.1	4.8	4.8	181.
7.0	1067.	2652.	0.2	4.4	4.4	177.
7.5	1143.	2728.	0.3	3.1	3.1	186.
8.0	1219.	2804.	1.4	2.2	2.6	213.
8.5	1295.	2880.	2.3	1.4	2.7	240.
9.0	1372.	2957.	0.3	0.7	0.8	201.
9.5	1448.	3033.	-1.8	1.3	2.2	126.
10.0	1524.	3109.	-3.5	1.9	3.9	118.
10.5	1600.	3185.	-4.0	1.1	4.2	106.
11.0	1676.	3261.	-3.7	-0.3	3.7	85.
11.5	1753.	3338.	-2.6	1.3	2.9	117.
12.0	1829.	3414.	-3.1	1.6	3.5	117.



UTAH DAUB      ELEV 1585 METERS      SOUNDING ID 3711  
 TE 12/18/76      TIME 07:26:51      ASCENT RATE 500 FPM      DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	W/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-17.85		0.0			
1.0	150.	1735.	-11.76	5.09	10.89	13.82	1.5	225.
2.0	300.	1885.	-5.34	5.42	3.28	6.20	0.3	109.
3.0	450.	2030.	-5.07	1.27	4.79	7.72	0.2	214.
4.0	600.	2185.	-3.35	1.71	4.58	7.51	1.2	77.
5.0	750.	2330.	-0.41		1.52	4.45	1.3	101.
6.0	900.	2480.	-1.18	2.26	0.0	2.93	6.5	205.
7.0	1050.	2630.	-1.57	-0.48	0.57	3.50	10.8	221.
8.0	1200.	2780.	-2.34	-0.77	0.0	2.93		
9.0	1350.	2930.	-8.60	-5.66	-1.74	1.19		
10.0	1500.	3080.	-13.74	-5.74	-0.98	1.95		

UTAH DAUB      ELEV 1585 METERS      SOUNDING ID 3711  
 TE 12/18/76      TIME 07:26:51      ASCENT RATE 500 FPM      DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.1	1.1	1.5	225.
0.5	75.	1660.	1.4	2.9	3.2	154.
1.0	150.	1737.	1.2	0.1	0.2	108.
1.5	225.	1814.	0.7	1.3	1.5	152.
2.0	300.	1890.	0.1	0.1	0.1	218.
2.5	375.	1965.	1.1	0.2	1.1	78.
3.0	450.	2042.	1.2	0.3	1.3	76.
3.5	525.	2118.	1.2	0.7	1.4	120.
4.0	600.	2195.	2.3	0.2	2.3	225.
4.5	675.	2271.	2.7	3.0	4.0	222.
5.0	750.	2347.	2.8	5.6	7.2	220.
5.5	825.	2423.	2.3	5.4	6.7	220.
6.0	900.	2499.	2.7	5.9	8.5	220.
6.5	975.	2576.	3.1	7.3	8.2	220.
7.0	1050.	2652.	3.3	8.6	10.1	221.
7.5	1125.	2728.	3.3	8.6	10.3	221.
8.0	1200.	2804.	3.2	9.0	10.8	221.
8.5	1275.	2880.	3.4	8.8	10.5	221.
9.0	1350.	2957.	7.0	8.8	11.2	221.
9.5	1425.	3033.	7.2	7.5	10.4	224.
10.0	1500.	3109.	6.0	5.6	9.0	222.
10.5	1575.	3185.	4.1	3.1	7.4	222.
11.0	1650.	3261.	4.0	3.5	7.6	221.
11.5	1725.	3337.	3.6	4.2	5.6	220.
12.0	1800.	3414.	4.1	3.2	5.2	232.



UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 3710

12/18/76

TIME 13:55 MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

ME IN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 3004	D/T LARGE	WS M/S	WD DEG
0	SFC		4.01		0.0		1.5	315.
3	150	1735	3.43	-0.57	2.10	5.03	0.9	274.
3	* 190	1775	5.08		1.91	4.04		
7	300	1885	4.58	1.45	3.25	0.32	1.6	32.
2	415	2000	3.91	-0.98	0.96	1.97	2.1	41.
3	500	2085	2.56	-1.34	3.44	6.36	1.8	174.
3	* 611	2396	4.26		0.57	2.36		
2	915	2500	7.10	4.55	2.46	0.47	4.5	226.
2	1415	3000	3.61	-2.91	2.87	0.06	5.0	259.
2	2415	4000	-0.29	-5.19	1.74	1.16		
3	3415	5000	-5.04	-4.16	1.96	0.97		
3	4415	6000	-11.66	-6.61	2.18	0.74		

UTAH UAUB

FLEV 1585 METERS

SOUNDING ID 3710

12/18/76

TIME 13:55 MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

ME IN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0	0	1585	1.1	-1.1	1.5	315.
3	76	1661	1.1	-0.6	1.2	240.
3	152	1737	0.0	-0.1	0.9	275.
3	229	1814	0.0	-1.4	1.4	339.
3	305	1890	0.0	-1.6	1.6	11.
3	384	1969	-1.1	-1.7	2.1	35.
3	469	2054	-1.1	-1.3	2.1	50.
3	545	2130	0.0	-1.3	1.3	350.
3	621	2206	0.0	-1.3	2.3	271.
3	697	2282	3.4	1.3	3.0	250.
3	773	2358	4.4	2.3	4.7	241.
3	850	2435	4.4	2.7	4.7	234.
3	926	2511	4.4	2.2	4.5	224.
3	1002	2587	4.4	2.3	4.1	236.
3	1078	2663	4.4	2.0	4.7	246.
3	1154	2739	3.3	2.0	4.4	244.
3	1231	2816	2.5	2.0	3.8	221.
3	1307	2892	2.0	2.5	3.9	230.
3	1383	2968	4.0	1.1	4.7	256.
3	1460	3045	5.2	0.7	5.4	262.
3	1536	3121	3.0	0.0	6.2	270.
3	1613	3198	0.0	1.0	5.5	261.
3	1689	3274	0.0	1.1	5.2	269.
3	1765	3350	0.0	0.4	5.0	272.
3	1840	3425	0.0	0.5	7.0	266.





UTAH DATA

ELEV 1585 METERS

SOUNDING ID 3708

12/20/76 TIME 07:27:45T ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME	HEIGHT M (ASL)	HEIGHT M (BSL)	TEMP C	WIND SPEED	WIND DIR	WIND LARGE	WIND SPEED	WIND DIR
00	0	1585	-17.44	0.0	0.0	0.0	2.1	225.
00	150	1735	-11.29	5.55	0.52	9.55	2.5	142.
00	300	1885	-9.01	2.55	0.25	12.18	4.1	156.
00	450	2035	-5.94	3.15	0.38	7.31	1.4	129.
00	600	2185	-5.10	10.29	1.15	1.78	0.8	170.
00	750	2335	-5.19	10.50	0.57	3.50	1.8	255.
00	900	2485	-5.70	0.19	0.19	3.12	1.8	196.
00	1050	2635	-5.02	0.08	0.0	2.93		
00	1200	2785	-5.02	3.90	1.70	0.22		
00	1350	2935	-5.74	3.72	1.98	1.95		

UTAH DATA

ELEV 1585 METERS

SOUNDING ID 3708

12/20/76 TIME 07:27:45T ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME	HEIGHT M (ASL)	HEIGHT M (BSL)	WIND SPEED	WIND DIR	WIND SPEED	WIND DIR
00	0	1585	1.5	1.5	2.1	225.
00	75	1660	1.4	1.4	2.0	135.
00	150	1735	1.5	1.4	2.5	142.
00	225	1810	1.8	1.7	1.9	156.
00	300	1890	4.1	4.1	4.2	166.
00	375	1965	2.3	2.3	2.3	177.
00	450	2040	0.2	0.2	0.2	169.
00	525	2115	0.5	0.5	1.3	248.
00	600	2190	0.5	0.5	0.5	206.
00	675	2265	0.5	0.5	0.5	181.
00	750	2340	0.5	0.5	1.3	190.
00	825	2415	1.3	1.3	1.3	193.
00	900	2490	1.7	1.7	1.7	255.
00	975	2565	2.7	2.7	2.7	255.
00	1050	2640	1.1	1.1	3.2	251.
00	1125	2715	1.6	1.6	2.7	253.
00	1200	2790	1.1	1.1	2.7	308.
00	1275	2865	1.4	1.4	1.9	313.
00	1350	2940	0.5	0.5	0.7	235.
00	1425	3015	2.5	2.5	2.5	167.
00	1500	3090	2.0	2.0	2.1	164.
00	1575	3165	2.2	2.2	1.2	173.
00	1650	3240	1.1	1.1	2.5	157.
00	1725	3315	2.0	2.0	3.4	141.
00	1800	3390	0.7	0.7	1.6	110.



UTAH DAHR

ELEV 1585 METERS

SOUNDING ID 3706

E 12/20/76 TIME 13:5148T ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	W/T STD	W/T 300.1	W/T LAPSE	W/S 1/3	W/D DEG
0.0	SFC		0.74		0.0		2.0	315.
1.0	150.	1735.	-0.59	-1.34	-0.12	2.74	1.9	300.
2.0	300.	1885.	-0.27	0.57	-1.28	1.15	1.9	358.
3.0	450.	2030.	-0.69	-1.25	-1.51	0.43	1.2	331.
4.0	600.	2185.	-0.29	0.89	-1.38	2.55	1.8	336.
5.0	750.	2330.	-0.93	-0.69	-1.31	4.24	2.7	250.
6.0	900.	2480.	-0.55	1.55	-2.44	0.89	5.6	218.
7.0	1050.	2630.	-2.90	-3.47	-10.75	2.17		
8.0	1200.	2780.	-1.62	-5.93	-13.57	40.94		
9.0	1350.	2930.	-1.73	-7.91	-14.51	-1.58		

UTAH DAHR

ELEV 1585 METERS

SOUNDING ID 3706

E 12/20/76 TIME 13:5048T ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.8	-1.8	2.6	315.
0.5	75.	1661.	2.3	-0.7	2.4	253.
1.0	150.	1737.	1.6	-1.0	1.8	302.
1.5	225.	1814.	1.1	-1.1	2.4	334.
2.0	300.	1890.	1.1	-1.9	1.9	358.
2.5	375.	1968.	0.4	-0.9	1.0	335.
3.0	450.	2045.	0.8	-1.1	1.4	325.
3.5	525.	2121.	0.5	-1.1	2.2	344.
4.0	600.	2197.	0.6	-0.9	1.1	340.
4.5	675.	2273.	0.3	-0.9	1.0	342.
5.0	750.	2349.	0.2	-1.4	1.5	351.
5.5	825.	2426.	1.0	-0.8	1.3	309.
6.0	900.	2502.	0.5	-0.0	1.7	249.
6.5	975.	2579.	0.9	-2.9	4.1	225.
7.0	1050.	2654.	0.7	-4.6	5.3	211.
7.5	1125.	2730.	0.9	-5.6	6.0	199.
8.0	1200.	2807.	0.7	-4.9	5.7	209.
8.5	1275.	2883.	0.9	-4.5	5.6	211.
9.0	1350.	2959.	0.5	-4.9	5.0	219.
9.5	1425.	3035.	0.4	-4.1	5.3	220.
10.0	1500.	3112.	0.1	-5.0	5.5	219.
10.5	1575.	3188.	0.9	-3.3	5.1	230.
11.0	1650.	3264.	0.2	-1.1	3.3	250.
11.5	1725.	3341.	0.0	-1.1	3.3	243.
12.0	1800.	3417.	0.5	-0.9	3.8	319.



UTAH DADR

ELEV 1585 METERS

SOUNDING ID 3704

12/22/76 TIME 07:29MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC,

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T SOLM	D/T LAPSE	WS M/S	WD DEG
0	SFC		+14.84		0.0		1.5	225.
1.0	150	1735	+11.27	3.57	8.76	11.69	0.9	105.
2.0	300	1885	+7.90	3.57	4.42	7.75	1.3	145.
3.0	450	2000	+4.97	2.54	4.22	7.15	0.8	151.
4.0	600	2085	+3.72	1.64	2.67	5.80	0.9	178.
5.0	750	2500	+2.25	1.46	0.38	3.31	7.2	257.
6.0	900	3000	+1.96	0.30	1.71	4.64	7.7	260.
7.0	*1638	3223	+0.80		0.0	2.43		
8.0	2415	4000	+5.74	3.78	2.50	0.43		
9.0	3415	5000	+11.36	5.62	1.76	1.17		
10.0	4415	6000	+15.64	4.28	1.38	1.55		

UTAH DADR

ELEV 1585 METERS

SOUNDING ID 3704

12/22/76 TIME 07:29MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC,

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0	0	1585	1.1	1.1	1.5	225
0.5	76	1661	2.1	1.7	2.7	130
1.0	152	1737	0.8	0.2	0.8	104
1.5	229	1814	0.7	0.1	0.8	100
2.0	305	1890	0.7	1.1	1.3	148
2.5	381	1966	0.0	0.6	0.6	178
3.0	457	2042	0.9	0.5	1.1	118
3.5	533	2118	0.5	0.5	0.7	225
4.0	610	2195	1.0	1.0	1.6	212
4.5	686	2271	0.8	1.7	1.8	206
5.0	762	2347	1.2	1.2	1.7	226
5.5	838	2423	2.6	0.8	2.8	253
6.0	914	2499	7.0	1.5	7.2	257
6.5	991	2576	8.1	1.5	8.3	259
7.0	1067	2652	7.7	2.5	8.1	252
7.5	1143	2728	9.0	2.1	9.2	257
8.0	1219	2804	10.2	1.8	10.3	260
8.5	1295	2880	8.4	0.4	8.4	273
9.0	1372	2957	10.1	1.9	10.3	259
9.5	1448	3033	5.7	0.9	5.7	261
10.0	1524	3109	0.0	0.5	4.1	263
10.5	1600	3185	4.2	1.1	4.4	265
11.0	1676	3261	4.2	1.1	4.2	272
11.5	1753	3338	5.2	1.3	5.4	292
12.0	1829	3414	3.5	1.7	3.9	296





UTAH DAIR ELEV 1535 FEET SOUNDING ID 3696  
 TIME 12/22/76 TIME 13:51 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T SOIL	D/T LAISE	AS M/S	AD DEG
0.0	0.0	1735	2.74		0.0		2.1	315.
1.0	150	1745	0.05	-2.09	0.57	2.36	2.2	315.
2.0	300	1755	0.39	-0.23	1.69	1.63	2.3	315.
3.0	450	2000	1.57	-1.24	1.19	2.74	1.8	320.
4.0	600	2025	0.57	0.05	1.14	4.07	1.1	238.
5.0	915	2500	0.13	1.45	0.0	2.03	6.3	250.
6.0	1415	3000	1.06	-1.66	2.09	0.64	3.6	255.
7.0	*2200	3745	4.09	-1.15	1.15	1.78		
8.0	2415	4000	3.03	-1.45	3.06	5.99		
9.0	*2561	4166	1.76		0.0	2.93		
10.0	3415	5000	7.51	-4.48	1.93	4.86		
11.0	4415	6000	10.95	-3.44	11.54	14.47		

UTAH DAIR ELEV 1565 METERS SOUNDING ID 3696  
 TIME 12/22/76 TIME 13:51 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.0	1585	1.5	1.5	2.1	315.
1.0	76	1661	1.0	1.0	2.2	302.
2.0	181	1766	1.3	1.3	3.0	320.
3.0	257	1842	0.0	0.0	3.0	345.
4.0	334	1910	1.0	1.0	3.0	328.
5.0	410	1985	1.0	1.0	3.0	318.
6.0	486	2071	0.0	0.0	3.0	347.
7.0	563	2148	0.0	0.0	3.0	319.
8.0	639	2224	0.0	0.0	3.0	328.
9.0	715	2300	0.0	0.0	3.0	320.
10.0	791	2376	0.0	0.0	3.0	325.
11.0	867	2452	0.0	0.0	3.0	351.
12.0	944	2529	0.0	0.0	3.0	350.
13.0	1020	2605	0.0	0.0	3.0	350.
14.0	1095	2681	0.0	0.0	3.0	352.
15.0	1172	2757	0.0	0.0	3.0	353.
16.0	1248	2833	0.0	0.0	3.0	355.
17.0	1325	2910	0.0	0.0	3.0	377.
18.0	1401	2986	0.0	0.0	3.0	359.
19.0	1477	3062	0.0	0.0	3.0	334.
20.0	1553	3138	0.0	0.0	3.0	319.
21.0	1629	3214	0.0	0.0	3.0	327.
22.0	1705	3291	0.0	0.0	3.0	329.
23.0	1782	3367	0.0	0.0	3.0	324.
24.0	1858	3443	0.0	0.0	3.0	313.



UTAH DATA FLEV 1585 METERS SOUNDING ID 3698  
 E 12/24/76 TIME 07:35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	W/T STD	W/T SEUM	W/T LAPSE	WS M/S	WD DEG
0.0	SFC	1735	-2.37		0.0		1.0	180.
1.0	150	1585	-3.79	1.08	0.78	5.70	1.1	213.
2.0	300	1585	-5.24	1.05	7.14	10.06	2.5	190.
2.7	415.	2000.					2.8	226.
3.3	500.	2085.					3.0	244.
6.0	915.	2500.					5.2	302.

UTAH DATA FLEV 1585 METERS SOUNDING ID 3698  
 E 12/24/76 TIME 07:35MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	10.0	1.0	1.0	180.
0.5	76.	1661.	10.1	1.2	1.2	173.
1.0	152.	1737.	10.6	0.9	1.1	215.
1.5	228.	1814.	10.0	1.3	1.4	205.
2.0	305.	1890.	10.4	1.6	2.0	190.
2.5	381.	1965.	1.5	2.1	2.6	216.
3.0	457.	2042.	2.5	1.6	3.0	238.
3.5	533.	2118.	2.7	1.1	2.9	246.
4.0	610.	2195.	3.1	1.2	3.1	266.
4.5	686.	2271.	2.9	1.2	3.2	292.
5.0	762.	2347.	3.0	1.5	3.0	309.
5.5	838.	2423.	3.6	1.7	4.5	309.
6.0	914.	2499.	4.4	2.7	5.2	302.
6.5	991.	2575.	5.7	2.4	5.2	293.
7.0	1067.	2652.	7.6	2.2	6.1	290.
7.5	1143.	2728.	9.1	2.4	9.4	285.
8.0	1219.	2804.	10.7	1.5	10.8	278.
8.5	1295.	2880.	9.9	1.7	9.0	274.
9.0	1372.	2957.	9.5	0.4	9.5	263.



UTAH DASH

ELEV 1555 METERS

SOUNDING ID 3700

12/20/76 TIME 13:54:51 ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME IN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP C	W/T STD	W/T 30MM	W/T LAPSE	WS M/S	WD DEG
	SFC		2.74		0.0		2.1	270.
1.0	150.	1735.	3.73	1.04	18.52	21.75	2.2	258.
2.0	300.	1885.	3.30	1.08	16.75	21.18	3.1	322.
2.7	415.	2000.	2.27	1.56	0.75	3.68	3.0	324.
3.3	500.	2085.	2.59	1.05	0.56	2.37	1.8	326.
3.9	615.	2190.	3.03	2.69	1.89	1.04	3.2	32.
4.7	1415.	3090.	3.51	2.55	1.23	4.30	8.5	
5.7	2415.	4090.	10.56	5.61	3.12	10.19		
6.2	3415.	5090.	16.04	5.58	2.76	0.17		
6.2	4415.	6090.	22.59	5.55	2.20	0.73		

UTAH DASH

ELEV 1555 METERS

SOUNDING ID 3700

12/20/76 TIME 13:54:51 ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME IN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1555.	2.1	0.0	2.1	270.
0.5	76.	1631.	2.5	1.2	2.8	245.
1.0	152.	1737.	2.2	0.5	2.2	258.
1.5	229.	1814.	1.4	0.0	1.4	270.
2.0	305.	1890.	1.8	0.6	2.2	325.
2.5	381.	1966.	2.1	2.0	3.0	325.
3.0	457.	2042.	1.4	1.8	2.5	323.
3.5	533.	2118.	0.8	1.2	1.4	323.
4.0	610.	2195.	0.8	1.4	1.6	331.
4.5	686.	2271.	1.1	1.7	1.7	335.
5.0	762.	2347.	1.1	2.0	2.5	29.
5.5	838.	2423.	1.5	1.7	2.5	40.
6.0	914.	2531.	1.7	3.2	3.5	29.
6.5	1022.	2607.	2.6	3.7	4.5	35.
7.0	1098.	2683.	3.5	4.3	5.5	30.
7.5	1174.	2759.	3.8	4.6	5.5	35.
8.0	1251.	2836.	3.8	5.4	5.5	35.
8.5	1337.	2922.	3.6	2.2	7.1	30.
9.0	1516.	3101.	3.7	4.1	9.8	22.
9.5	1645.	3230.	1.6	4.6	4.9	10.
10.0	1730.	3315.	1.0	4.1	5.0	0.
10.5	1850.	3444.	0.8	2.1	2.2	7.
11.0	1962.	3577.	1.0	2.0	4.1	34.
11.5	2068.	3653.	2.1	2.7	3.4	32.
12.0	2146.	3731.	2.4	2.7	3.0	318.



UTAH WAOB

ELEV 1585 METERS

SOUNDING ID 3702

12/26/76 TIME 07:33 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	O/T STD	O/T 300M	O/T LAFSE	WS M/S	WD DEG
0.0	SFC	1735	-14.84		0.0		1.0	180.
0.0	150	1885	-7.55	7.31	12.24	15.87	1.1	180.
0.7	300	2000	-3.32	4.21	5.82	8.74	1.5	289.
0.7	415	2000	-1.86	1.58	1.90	4.83	2.6	322.
0.8	500	2005	-1.23	0.53	1.71	4.64	2.3	339.
0.5	* 838	2423	0.18		0.19	3.12		
0.0	915	2500	-0.13	1.11	0.0	2.93	8.6	214.
0.3	1415	3000	-0.13	0.0	0.38	2.55	13.3	243.
0.3	2415	4000	0.26	0.39	1.51	1.42		
0.4	3415	5000	-4.48	4.74	1.15	1.78		
0.0	4415	6000	-9.08	4.60	2.72	0.21		

UTAH WAOB

ELEV 1585 METERS

SOUNDING ID 3702

12/26/76 TIME 07:33 MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	0.0	1.0	1.0	180.
0.5	75.	1661.	0.3	1.1	1.2	167.
0.0	152.	1737.	0.0	1.1	1.1	180.
0.0	229.	1814.	0.0	0.1	0.6	258.
0.0	305.	1890.	1.6	0.6	1.7	292.
0.3	381.	1966.	1.4	1.8	2.6	313.
0.3	457.	2042.	1.2	2.4	2.7	333.
0.5	533.	2118.	0.6	2.0	2.1	344.
0.0	610.	2195.	0.3	0.4	0.5	35.
0.0	686.	2271.	0.4	0.8	1.2	227.
0.0	762.	2347.	0.9	3.4	4.3	221.
0.0	838.	2423.	4.6	7.0	8.5	214.
0.0	914.	2499.	4.8	7.1	8.6	214.
0.0	991.	2576.	5.6	6.7	8.8	220.
0.0	1067.	2652.	6.2	6.3	8.8	225.
0.0	1143.	2728.	6.2	5.4	8.2	229.
0.0	1219.	2804.	6.2	5.5	9.0	236.
0.0	1295.	2880.	9.0	6.6	11.5	240.
0.0	1372.	2957.	11.2	6.4	12.9	240.
0.0	1448.	3033.	12.4	5.7	13.7	245.
0.0	1524.	3109.	14.8	3.8	15.3	256.
0.0	1600.	3185.	14.1	2.4	14.3	260.
0.0	1676.	3261.	10.9	3.1	11.3	254.
0.0	1753.	3338.	9.2	4.8	10.4	242.
0.0	1829.	3414.	7.5	4.1	9.4	244.





UTAH CAUB ELEV 1585 METERS SOUNDING ID 3703  
 E 12/26/76 TIME 13:51:51T ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP °C	W/T SID	W/T S/M	W/T LAPSE	WS °/S	WD DEG
	SFC		3.43		0.0		4.6	315.
1.0	150.	1735.	3.55	-0.28	-0.37	2.56	3.2	275.
2.0	300.	1885.	3.72	-0.16	-0.37	3.30	4.1	335.
2.7	415.	2000.	3.54	-0.65	0.0	2.93	4.7	198.
3.3	500.	2085.	3.53	-0.56	-0.36	-0.43	5.2	10.
3.3	* 804.	2389.	3.27		-0.40	2.02		
5.0	915.	2500.	4.58	1.8	-0.49	-0.25	6.8	249.
9.0	1415.	3000.	3.33	-0.89	0.74	3.67	9.9	239.
11.8	* 1706.	3291.	3.58		0.62	0.31		
14.5	* 2330.	3915.	4.50		0.0	2.03		
5.0	2415.	4000.	2.71	-1.11	-0.73	-2.65		
5.0	3415.	5000.	-1.03	-3.74	-1.70	1.22		
5.5	4415.	5000.	-5.39	-4.36	0.19	3.12		

UTAH CAUB ELEV 1585 METERS SOUNDING ID 3703  
 E 12/26/76 TIME 13:51:51T ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	2.6	-2.5	3.6	315.
0.5	75.	1660.	2.2	-1.4	3.3	240.
1.0	152.	1737.	3.2	-0.3	3.2	276.
1.5	229.	1814.	2.3	-2.1	3.2	313.
2.0	305.	1890.	1.0	-3.6	4.1	337.
2.5	381.	1966.	0.6	-4.4	4.4	353.
3.0	457.	2042.	0.5	-4.9	4.9	370.
3.5	533.	2118.	1.3	-5.3	5.5	10.
4.0	614.	2199.	1.2	-6.4	4.8	25.
4.5	690.	2275.	1.3	-6.0	4.4	34.
5.0	767.	2352.	1.3	-6.4	4.8	22.
5.5	843.	2428.	1.0	-7.2	5.3	3.
6.0	922.	2507.	2.0	-7.6	7.3	32.
6.5	1022.	2614.	2.0	-8.0	7.5	200.
7.0	1105.	2691.	4.0	-8.8	10.1	200.
7.5	1182.	2767.	5.0	-8.2	10.2	210.
8.0	1269.	2854.	6.0	-9.3	10.4	228.
8.5	1346.	2931.	7.1	-5.5	9.0	233.
9.0	1422.	3007.	8.7	-5.0	10.0	240.
9.5	1498.	3083.	10.2	-6.6	11.3	245.
10.0	1574.	3159.	9.0	-5.0	10.5	241.
10.5	1650.	3235.	8.5	-4.8	10.7	243.
11.0	1727.	3312.	11.0	-4.4	11.8	248.
11.5	1833.	3418.	12.8	-4.0	13.4	253.
12.0	1945.	3530.	13.0	-4.2	13.6	252.



UTAH VALLEY ELEV 1565 METERS SOUNDING ID 3701  
 12/28/76 TIME 07:33:41 ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	WIND STD	WIND 300M	WIND LAPSE	WIND KTS	WIND DEG
0.0	500	1735	-13.64		0.0		5.6	135.
1.0	150	1751	-15.98	7.46	10.02	16.05	7.3	141.
2.0	250	1865	-11.57	4.41	0.19	3.12	5.3	154.
3.0	350	2000	-11.76	10.19	1.33	1.60	4.1	187.
4.0	450	2085	-12.40	10.84	2.28	0.64	5.9	204.
5.0	550	2500	-15.24	13.24	0.0	2.93	5.5	259.
6.0	650	3000	-17.51	11.17	1.74	1.19	2.7	297.
7.0	750	4000	-10.17	15.15	0.39	3.32		
8.0	850	5000	-12.57	2.57	2.54	0.36		
9.0	950	6000	-14.52	2.71	3.18	0.25		

UTAH VALLEY ELEV 1565 METERS SOUNDING ID 3701  
 12/28/76 TIME 07:34:41 ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME	HEIGHT M (AGL)	HEIGHT M (MSL)	WIND KTS	WIND KTS	WIND KTS	WIND DEG
0.0	0	1565	2.5	2.5	3.5	135.
0.5	75	1661	2.2	1.1	3.4	108.
1.0	150	1737	4.6	5.8	7.5	142.
1.5	225	1814	2.2	3.6	5.2	133.
2.0	300	1890	2.2	4.8	5.3	155.
2.5	375	1966	2.2	4.4	4.4	177.
3.0	450	2042	1.1	3.5	3.7	198.
3.5	525	2118	1.9	3.6	4.1	208.
4.0	600	2200	2.5	3.7	4.5	214.
4.5	675	2282	2.9	3.7	5.9	227.
5.0	750	2365	2.7	2.5	4.5	235.
5.5	825	2451	2.0	1.1	4.9	257.
6.0	900	2537	2.0	1.0	5.1	260.
6.5	975	2613	2.0	0.1	7.0	276.
7.0	1050	2689	2.2	0.0	5.2	278.
7.5	1125	2766	2.2	0.0	4.8	280.
8.0	1200	2842	3.0	0.7	3.2	282.
8.5	1275	2918	2.0	0.7	2.7	285.
9.0	1350	2994	2.0	1.1	2.0	290.
9.5	1425	3070	2.0	1.4	3.3	314.
10.0	1500	3147	2.0	4.0	4.9	320.
10.5	1575	3224	2.0	0.0	7.3	334.
11.0	1650	3300	2.0	0.0	5.2	344.
11.5	1725	3375	2.0	0.1	4.2	352.
12.0	1800	3451	2.0	0.3	5.3	3.



UTAH DAOR ELEV 1585 METERS SIMULATING 10 3699  
 12/28/76 TIME 12:00:00 ST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	W/T STD	W/T SEA	W/T LAPSE	WS M/S	WD DEG
0.0	SFC		3.39		0.0		1.5	315.
0.2	150.	1735.	3.29	-2.30	-0.37	2.56	1.9	274.
0.4	300.	1785.	3.52	-0.43	-1.60	1.27	2.0	126.
0.6	450.	2000.	4.18	-0.09	-1.66	4.59	1.3	58.
0.8	600.	2085.	3.03	-1.00	-0.74	2.19	1.0	287.
1.0	750.	2500.	3.43	-0.21	-0.74	3.67	6.5	228.
1.2	900.	3010.	3.33	-4.53	-1.50	1.43	5.3	244.
1.4	1050.	3500.	3.25	-3.75	-3.61	0.68		
1.6	1200.	3900.	3.09	-2.23	-3.83	0.00		

UTAH DAOR ELEV 1585 METERS SIMULATING 10 3699  
 12/28/76 TIME 14:00:00 ST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	W-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585.	1.1	1.1	1.5	315.
0.5	76.	1661.	1.5	0.8	1.7	242.
1.0	173.	1758.	1.9	0.5	2.0	284.
1.5	249.	1834.	0.7	2.0	2.1	342.
2.0	325.	1910.	0.7	1.9	2.0	19.
2.5	401.	1985.	0.1	1.5	1.5	4.
3.0	478.	2063.	0.5	0.4	0.7	300.
3.5	554.	2139.	1.4	1.1	1.8	233.
4.0	630.	2215.	3.3	2.0	2.2	232.
4.5	706.	2291.	3.9	3.5	5.2	228.
5.0	782.	2367.	4.5	4.1	5.1	228.
5.5	858.	2443.	4.5	4.1	5.1	228.
6.0	934.	2519.	5.2	4.5	7.9	220.
6.5	1010.	2595.	4.0	4.4	5.6	228.
7.0	1086.	2671.	5.4	4.4	7.9	231.
7.5	1162.	2747.	5.5	3.9	7.5	230.
8.0	1238.	2823.	5.5	2.4	7.1	247.
8.5	1314.	2899.	5.7	2.5	6.3	245.
9.0	1390.	2975.	5.7	3.2	7.5	241.
9.5	1466.	3051.	5.4	3.5	6.6	237.
10.0	1542.	3127.	5.8	2.7	7.2	235.
10.5	1618.	3203.	7.2	2.0	7.5	254.
11.0	1694.	3279.	8.8	0.2	5.8	200.
11.5	1770.	3355.	10.0	1.0	11.1	200.
12.0	1846.	3431.	11.1	1.8	11.2	201.





TITAN 1408 ELEV 1585 METERS SOUNDING ID 3597  
 12/31/76 TIME 07:34:15T ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (ASL)	TEMP DEG C	W/T STD	W/T 300M	W/T LARGE	WS M/S	WD DEG
0.0	SEC	1735	-13.65		0.0		1.0	135.
1.0	150	1685	-13.31	3.74	11.00	13.93	0.8	116.
2.0	300	1655	-13.25	5.87	5.10	9.03	1.8	195.
2.7	415	2060	-1.90	1.65	2.08	5.01	3.1	206.
3.3	500	2045	-1.15	0.42	1.51	4.44	4.6	194.
3.5	* 533	2118	-1.13		1.51	4.44		
4.0	815	2500	-1.41	10.17	1.52	1.41	6.3	239.
5.3	1415	3000	-3.22	22.01	0.57	2.36	13.8	271.
6.8	2415	4000	-10.25	6.35	2.33	0.60		
7.4	3415	5000	-17.04	8.76	2.56	0.36		
7.5	4415	6000	-25.04	9.60	3.41	0.48		

TITAN 1408 ELEV 1585 METERS SOUNDING ID 3597  
 12/30/76 TIME 07:35:15T ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (ASL)	W-CORR M/S	W-CORR M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	1585	-0.7	0.7	1.0	135.
0.5	75.	1661	-0.2	-0.2	0.3	313.
1.0	152.	1737	-0.7	0.3	0.8	110.
1.5	229.	1814	0.4	3.3	3.3	186.
2.0	305.	1890	0.5	1.5	1.6	195.
2.5	381.	1966	1.7	2.1	2.7	319.
3.0	457.	2042	0.6	3.5	3.0	180.
3.5	533.	2118	1.6	5.1	5.4	197.
4.0	610.	2195	3.2	5.5	7.3	206.
4.5	686.	2271	4.2	5.6	7.0	217.
5.0	762.	2347	4.0	4.9	6.9	226.
5.5	838.	2423	4.8	4.0	6.3	230.
6.0	914.	2499	5.4	3.3	6.3	239.
6.5	991.	2576	7.1	1.5	6.3	255.
7.0	1067.	2652	7.0	1.7	7.2	255.
7.5	1143.	2728	8.5	2.5	8.5	260.
8.0	1219.	2804	10.3	3.5	10.3	272.
8.5	1295.	2880	12.7	0.0	12.7	273.
9.0	1372.	2957	13.8	3.3	13.8	271.
9.5	1448.	3033	13.8	0.0	13.8	271.
10.0	1524.	3109	15.0	1.5	15.0	275.
10.5	1600.	3185	18.5	1.1	18.6	275.
11.0	1676.	3261	17.7	0.0	16.9	270.
11.5	1753.	3338	16.2	0.0	16.3	277.
12.0	1829.	3414	12.3	0.7	12.0	283.



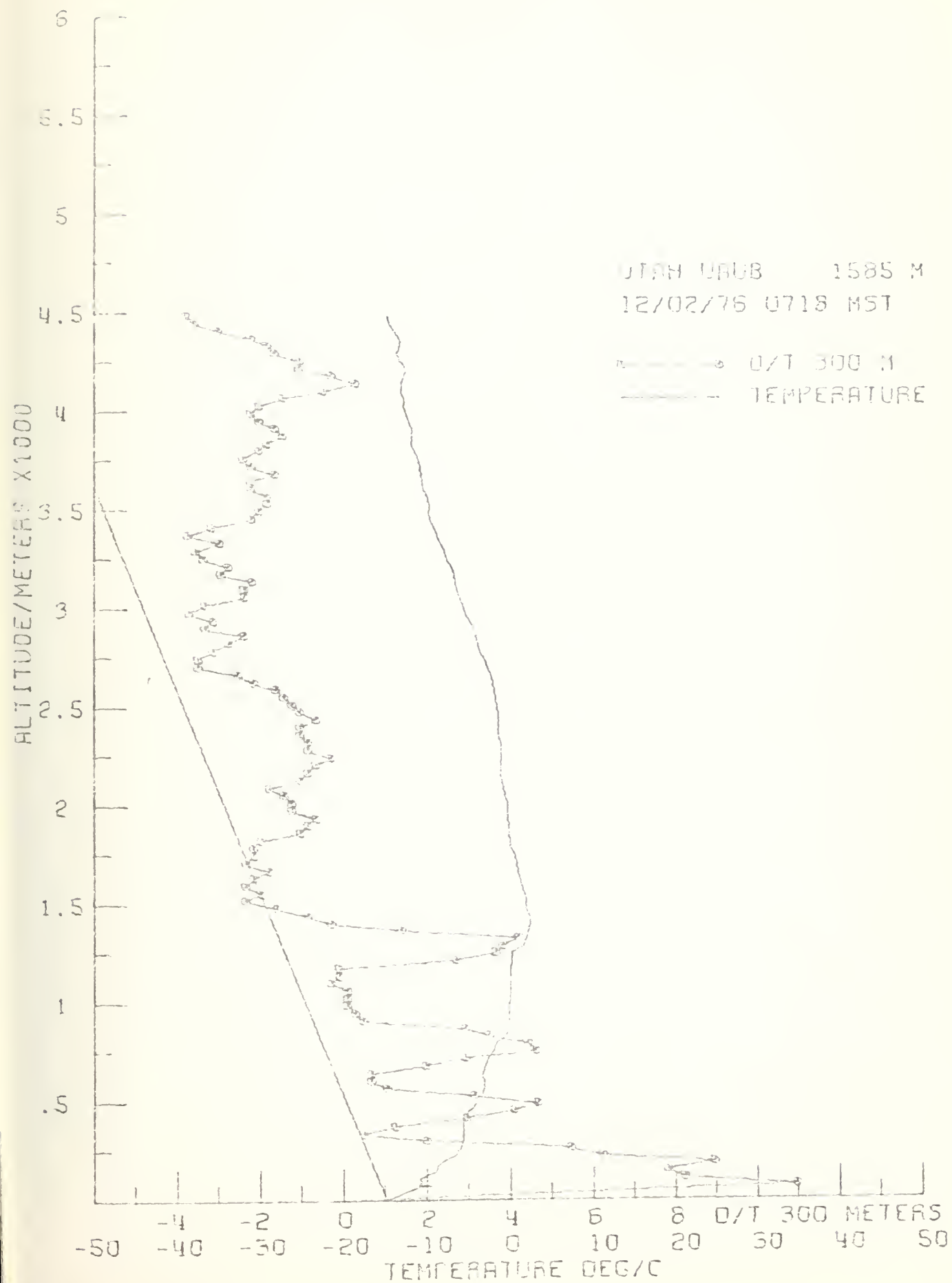
UTAH DATA ELEV 1585 METERS SOUNDING ID 3857  
 12/30/76 TIME 13:50ZST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	WIND M/S	WIND KTS	WIND DIR DEG	WIND SPEED M/S	WIND DIR DEG
0.0	500	1735	-4.84	-2.92	-5.34	45	5.1	45
1.5	300	1535	-3.55	-1.17	-2.14	45	5.1	45
2.2	115	2050	-2.13	-0.67	-1.19	45	5.1	45
2.8	500	2085	-2.13	-0.67	-1.19	45	5.1	45
5.5	915	2500	-2.51	-0.38	-0.70	45	5.1	45
5.7	1815	3310	-3.12	-2.01	-3.57	45	5.1	45
6.3	2415	4110	-7.31	-4.19	-7.93	45	5.1	45
6.8	3015	5160	-14.15	-8.78	-16.00	45	5.1	45
8.3	4415	6010	-18.65	-4.71	-8.59	45	5.1	45

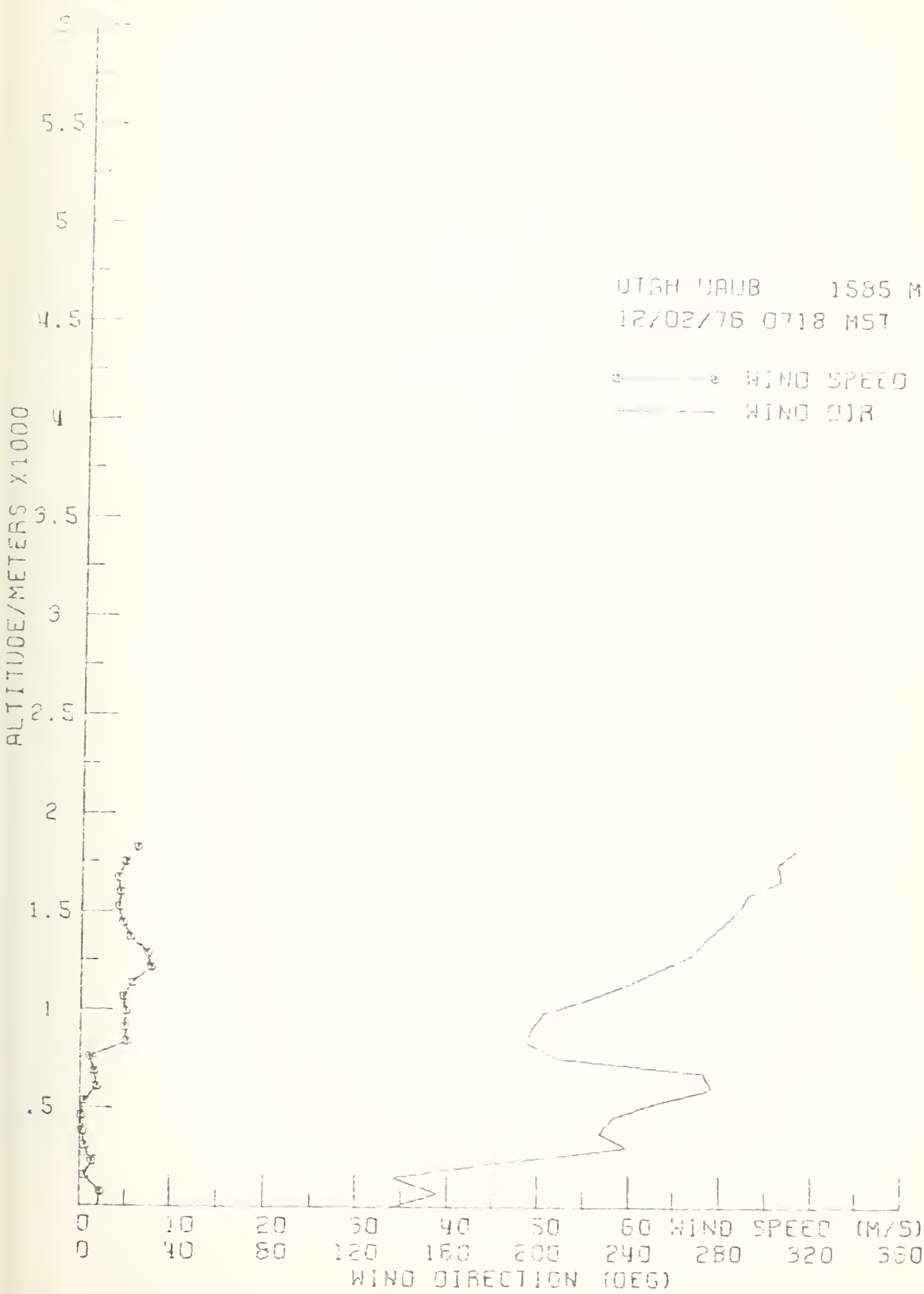
UTAH DATA ELEV 1585 METERS SOUNDING ID 3857  
 12/30/76 TIME 13:50ZST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0	1585	-3.6	-3.6	5.1	45



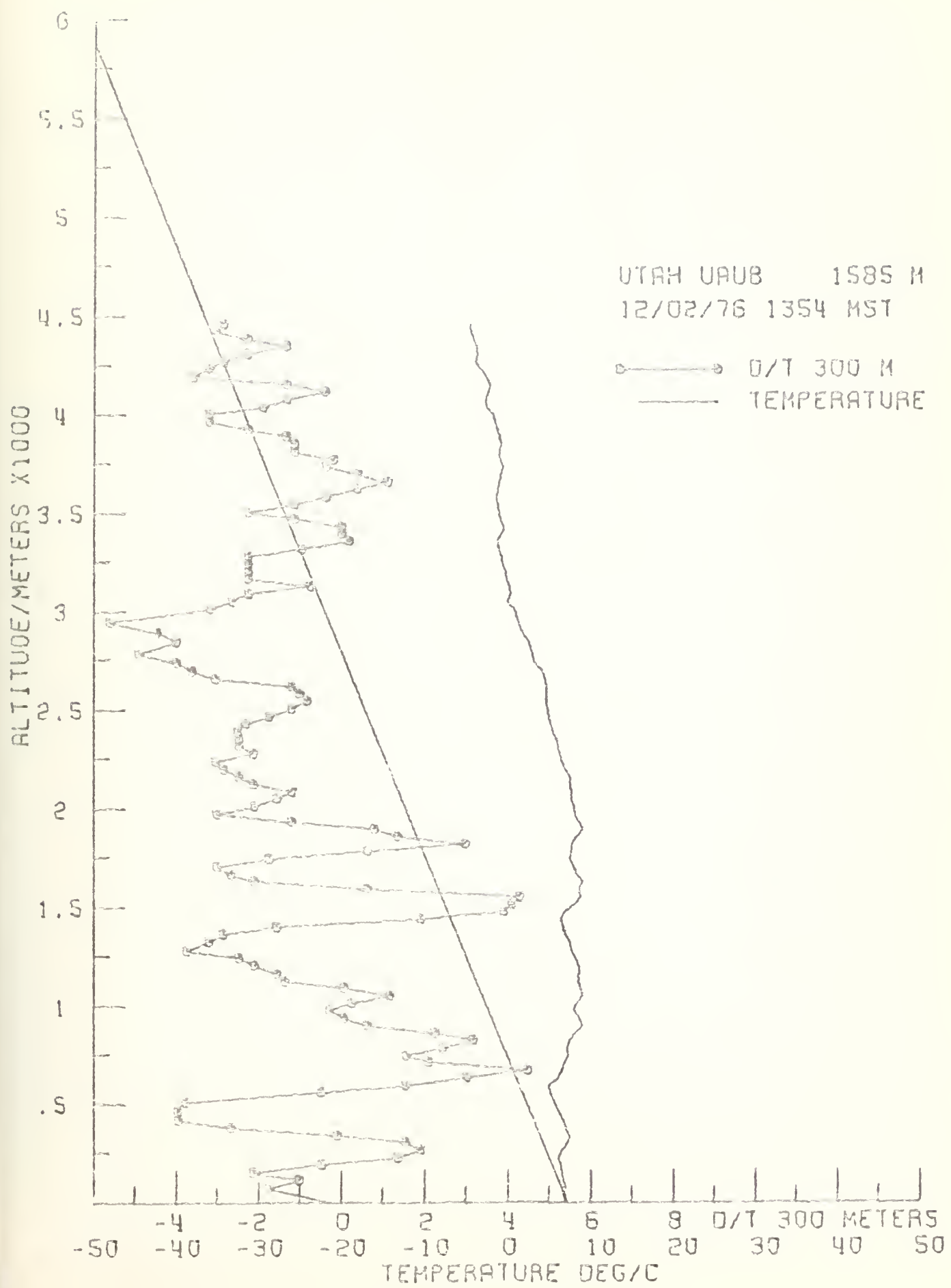




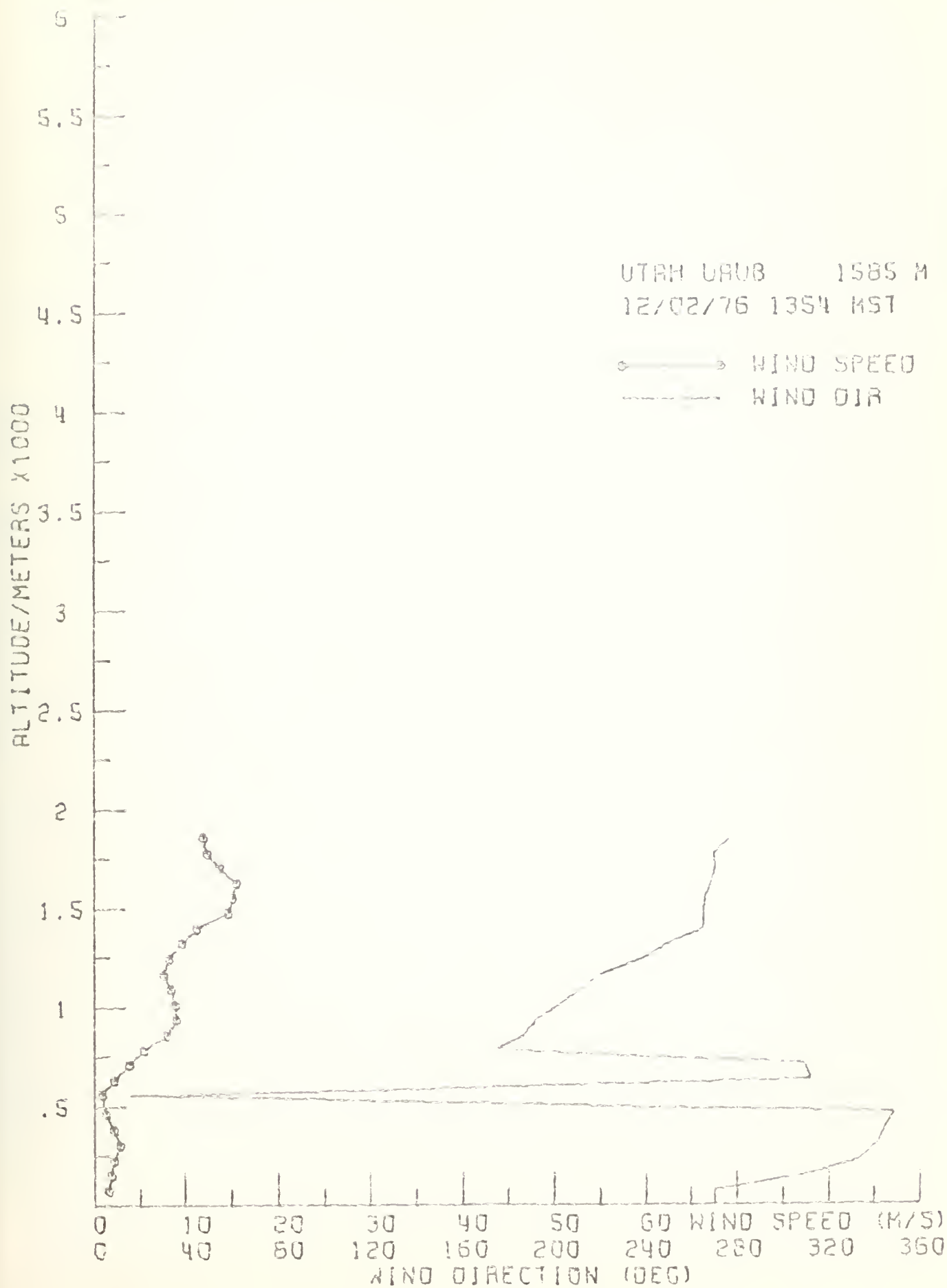






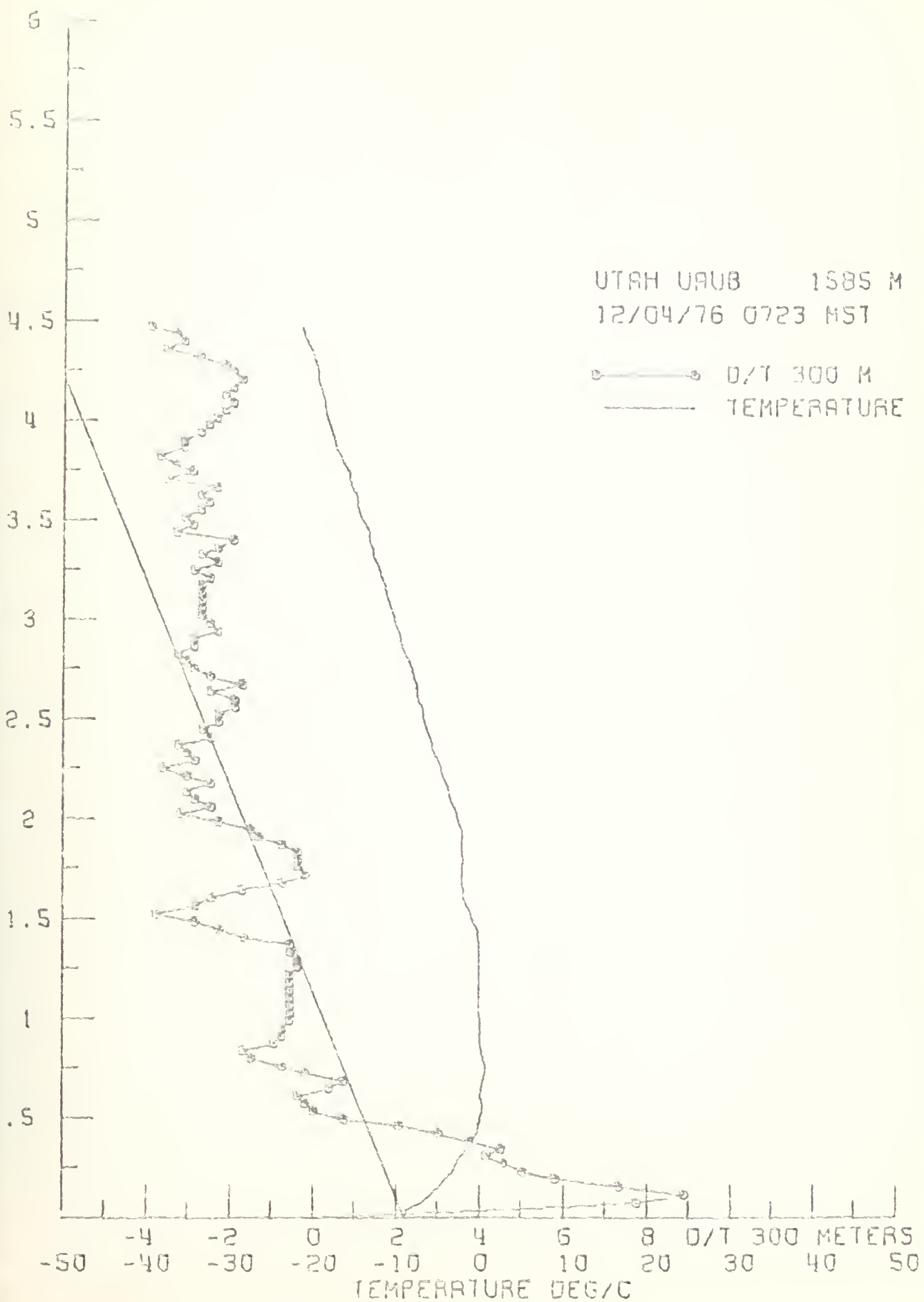








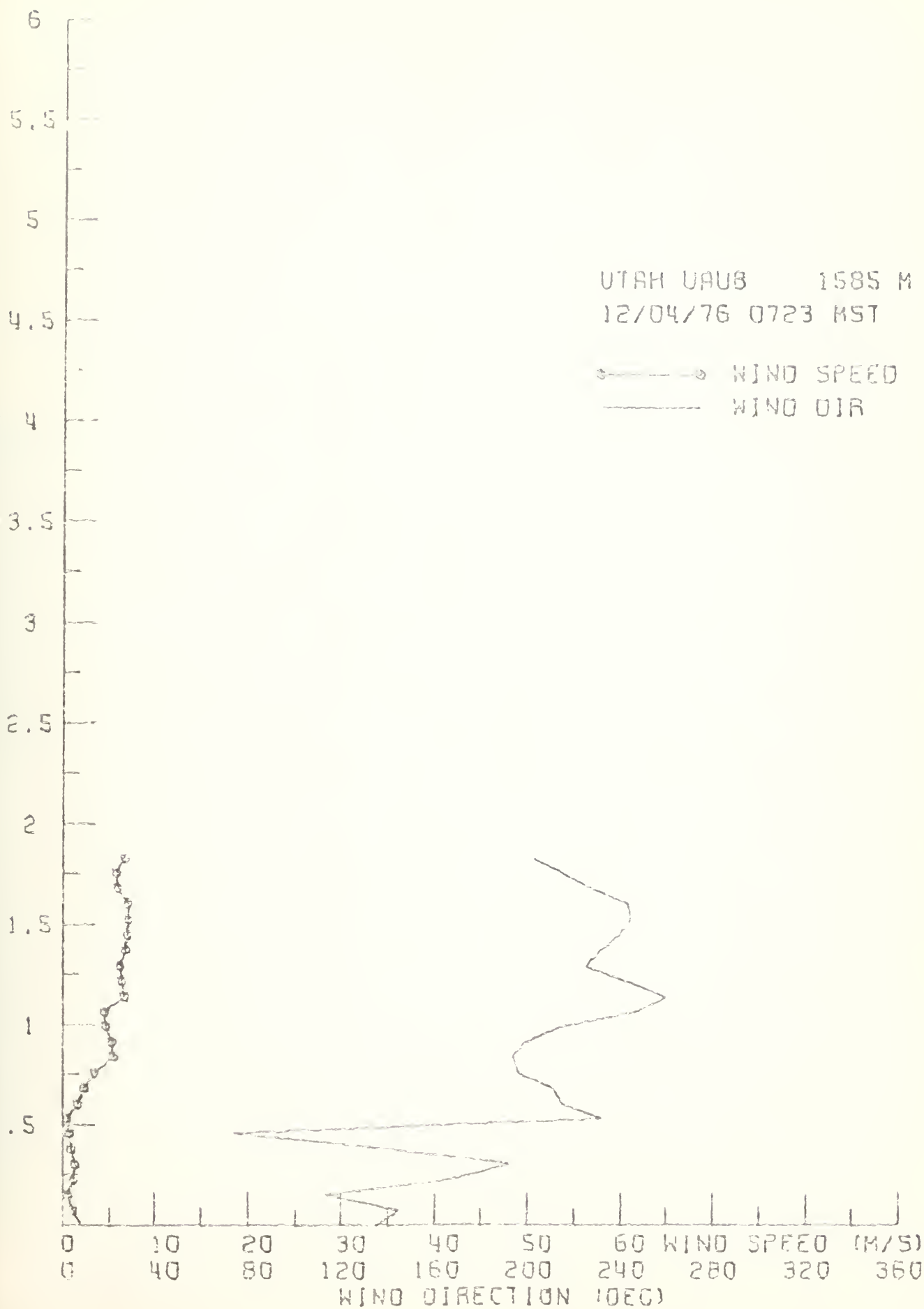
ALTITUDE/METERS X1000



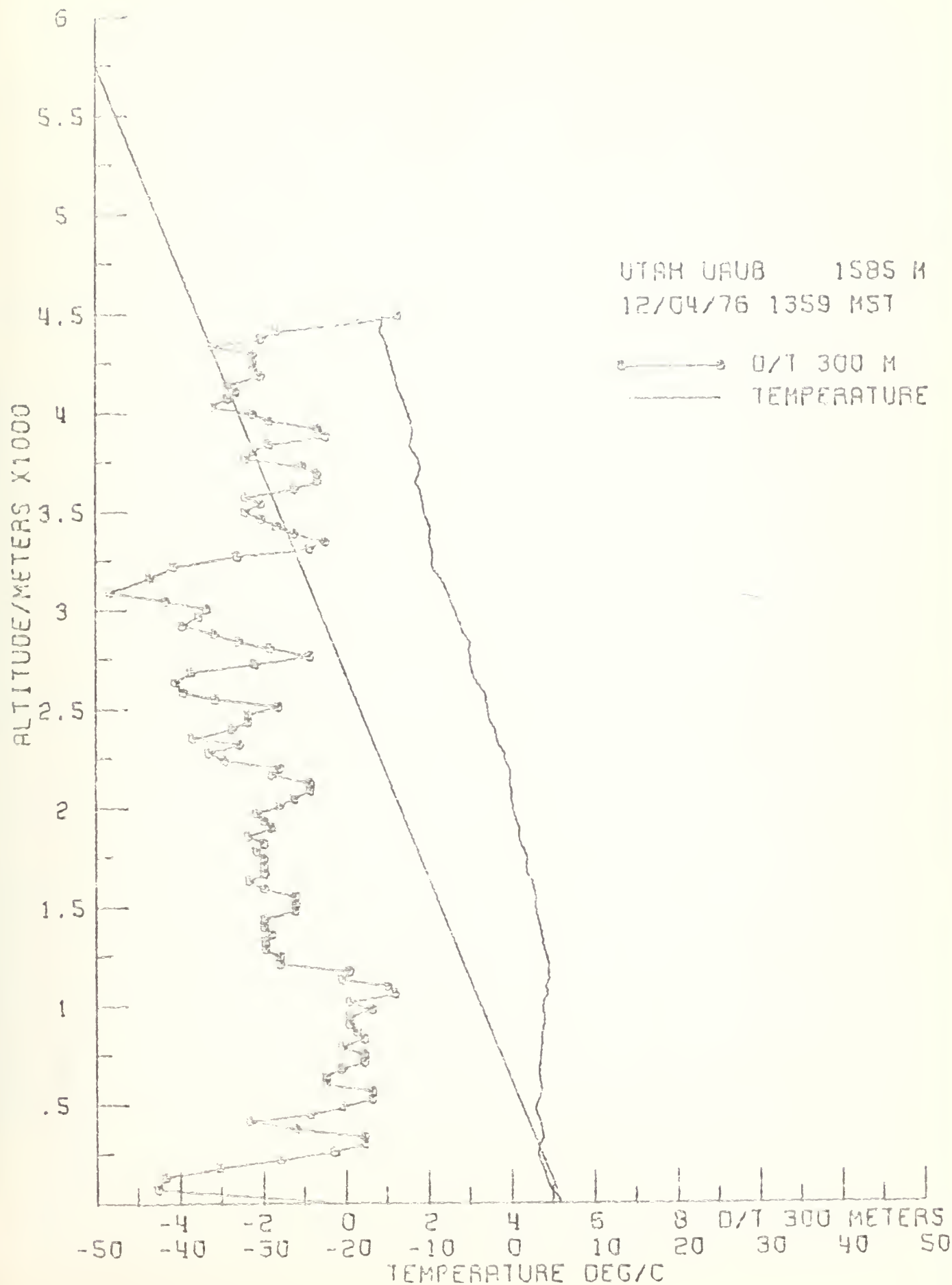




ALTITUDE/METERS X1000

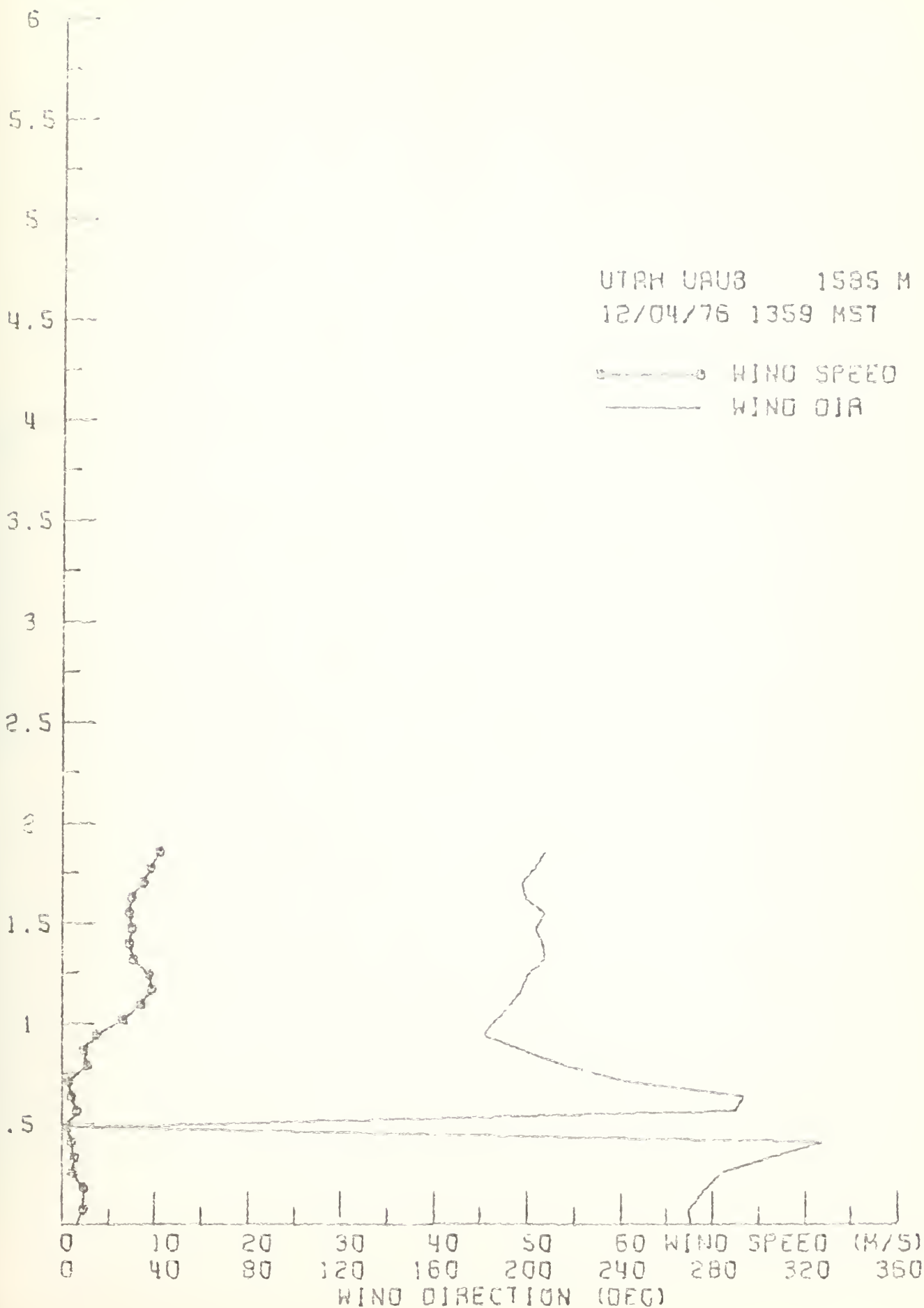




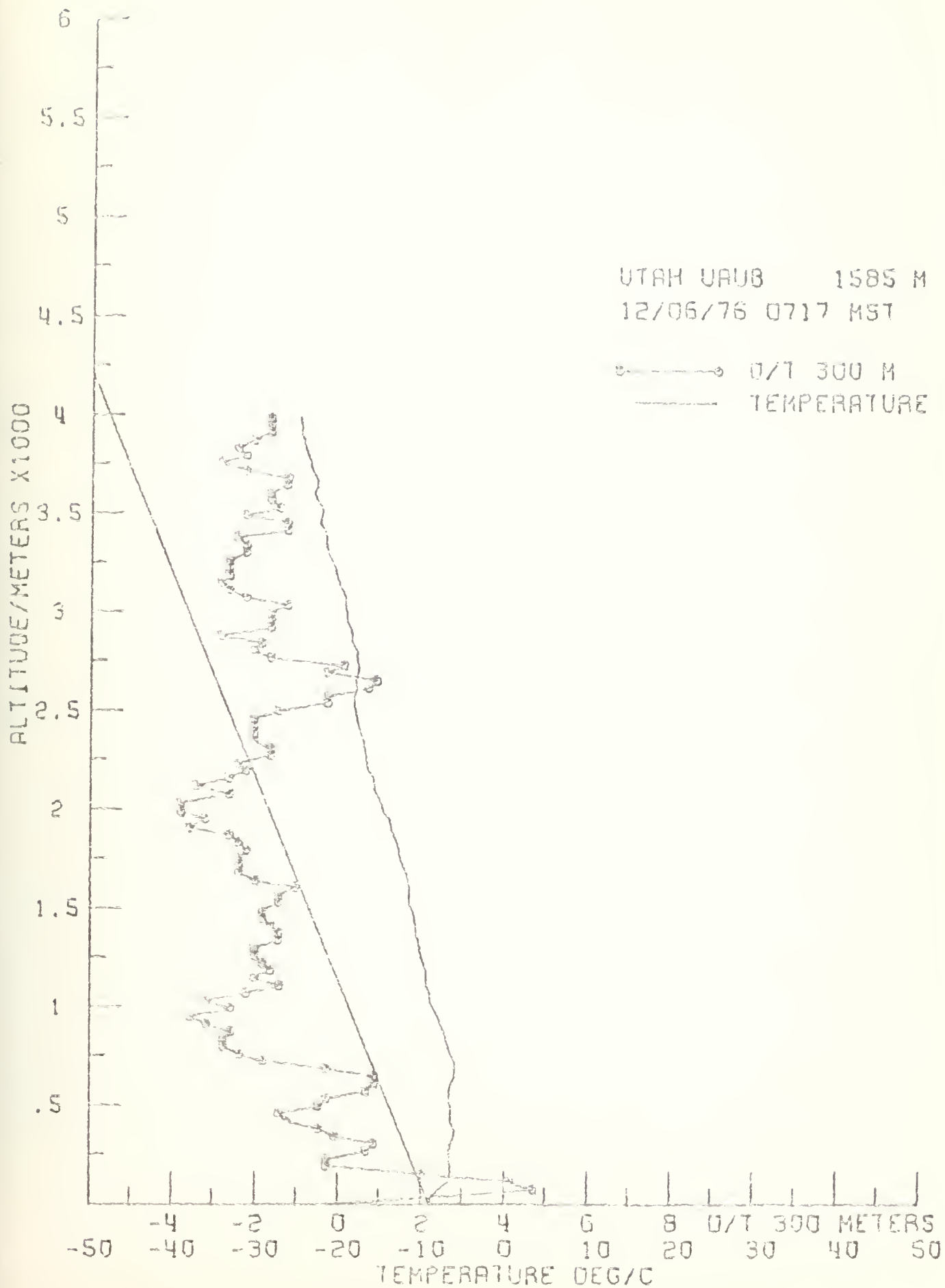




ALTITUDE/METERS X1000



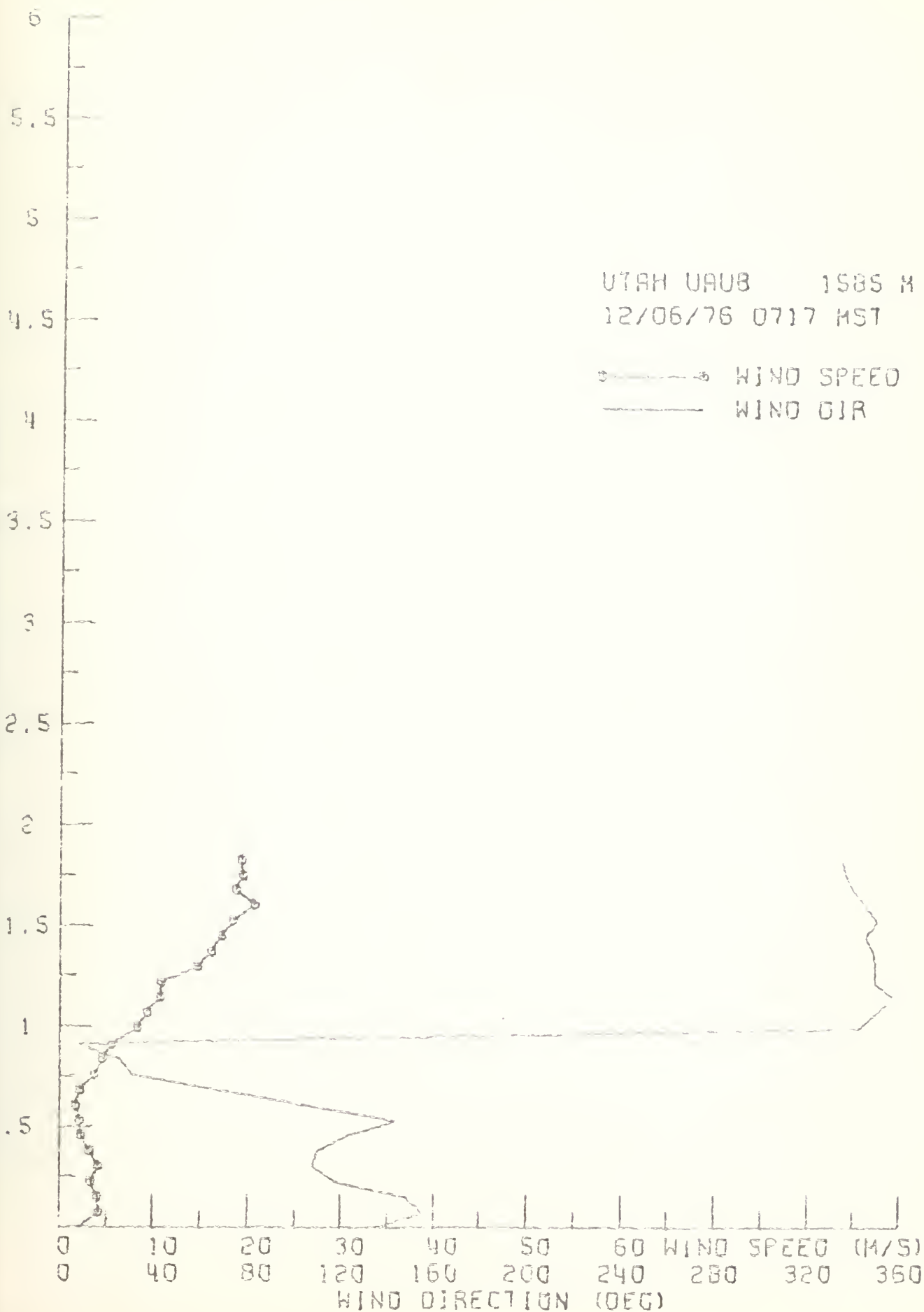






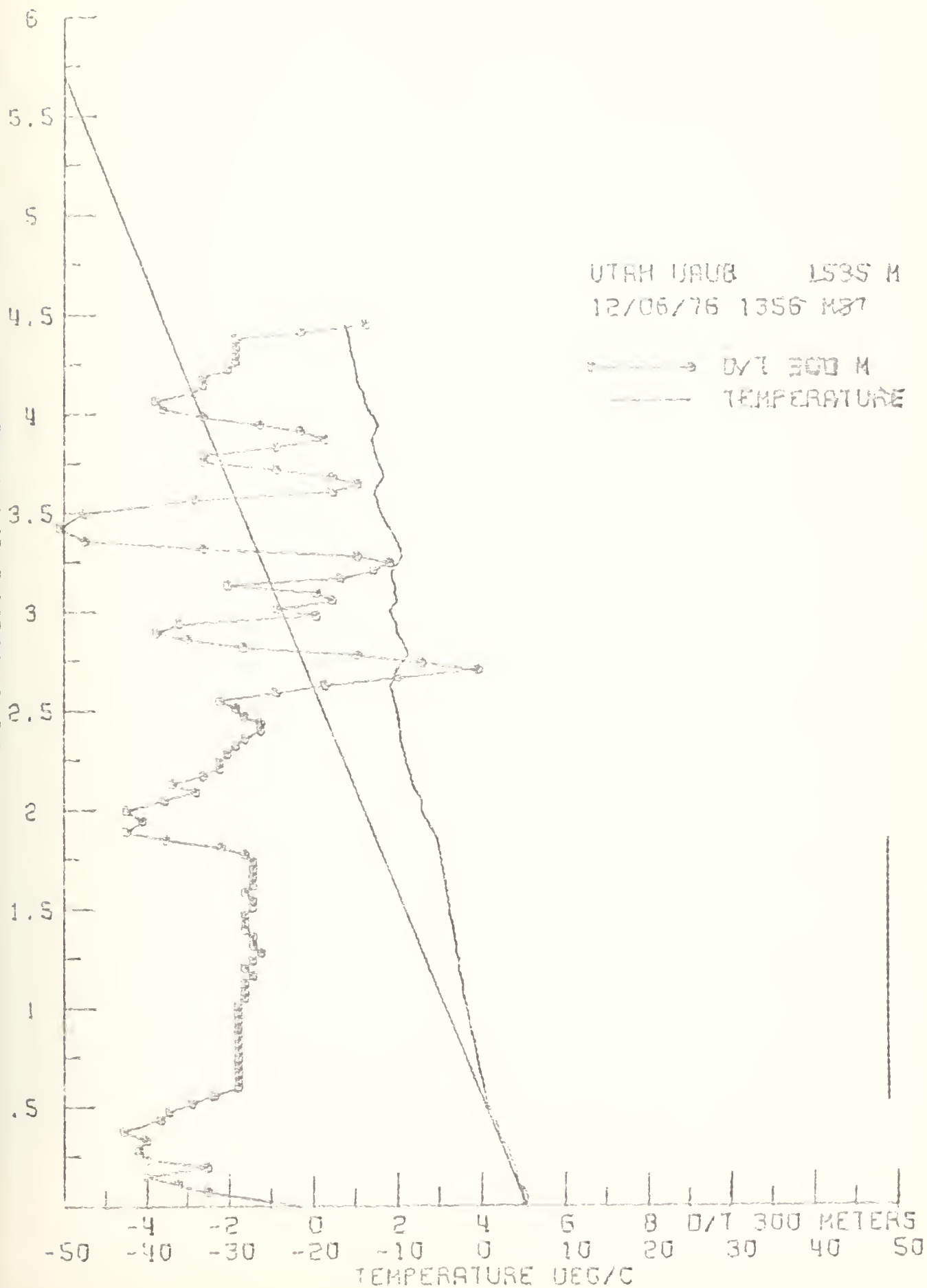


ALTITUDE/METERS X1000





ALTITUDE/METERS X1000



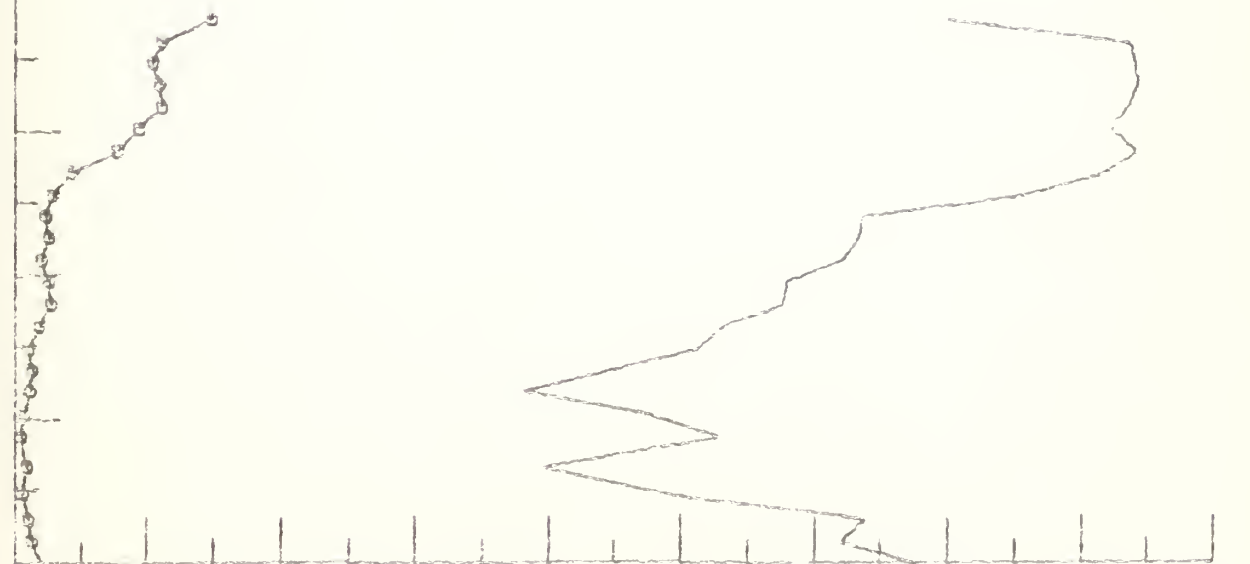
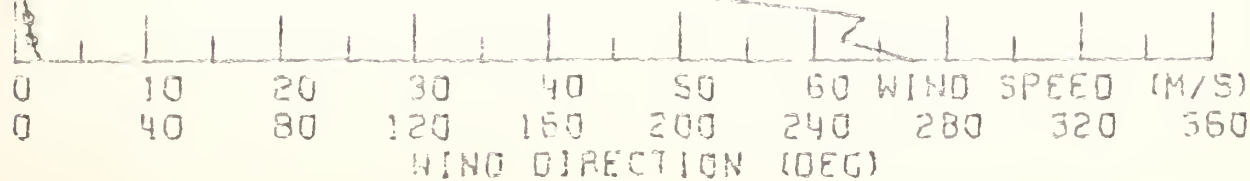


ALTITUDE/METERS X1000

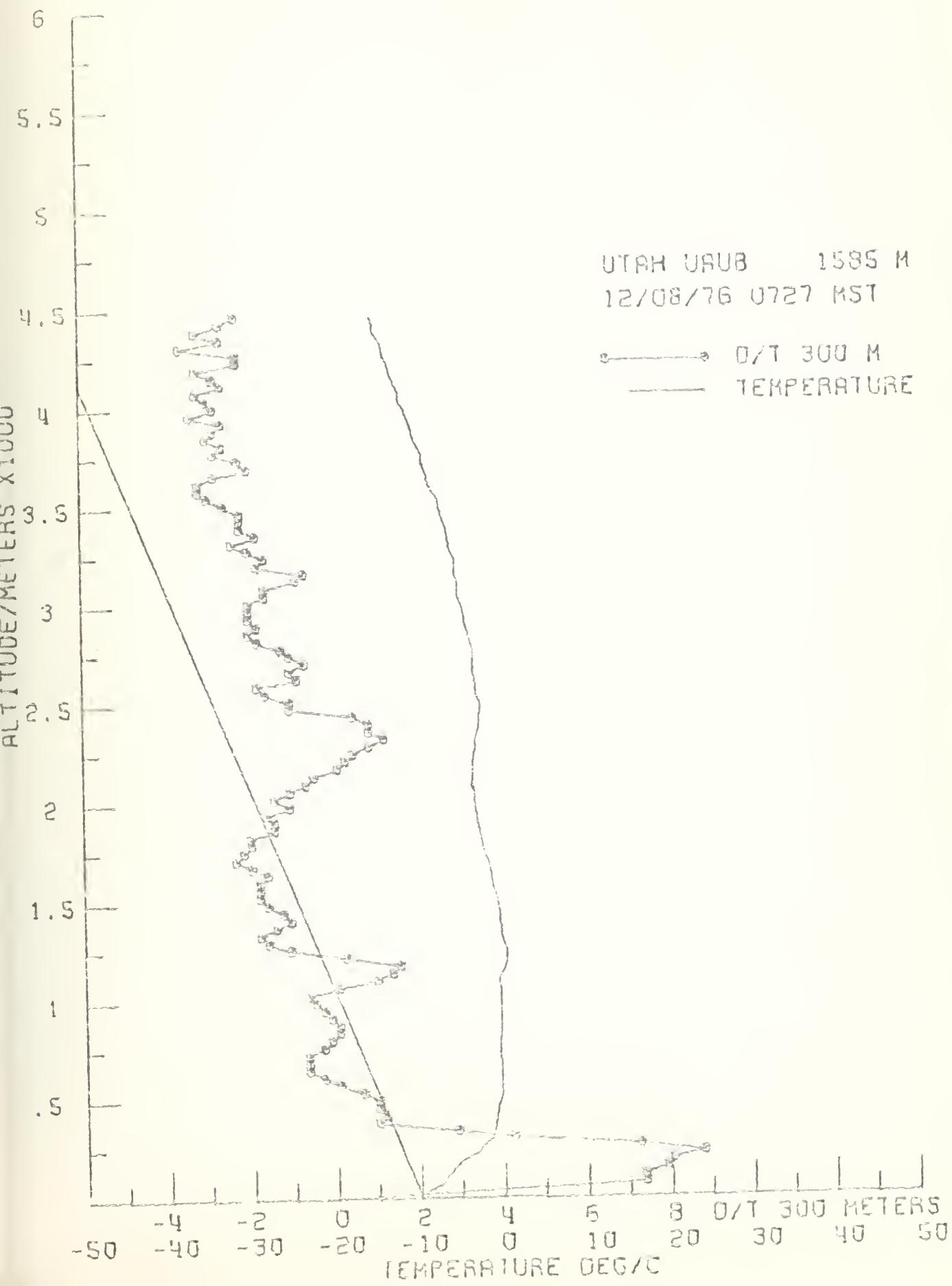


UTAH URUB 1585 M  
12/06/76 1356 MST

WIND SPEED  
WIND DIR



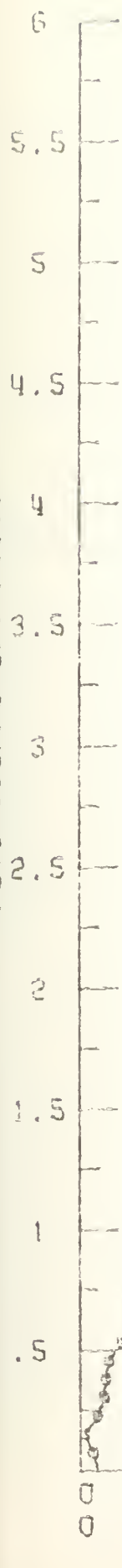






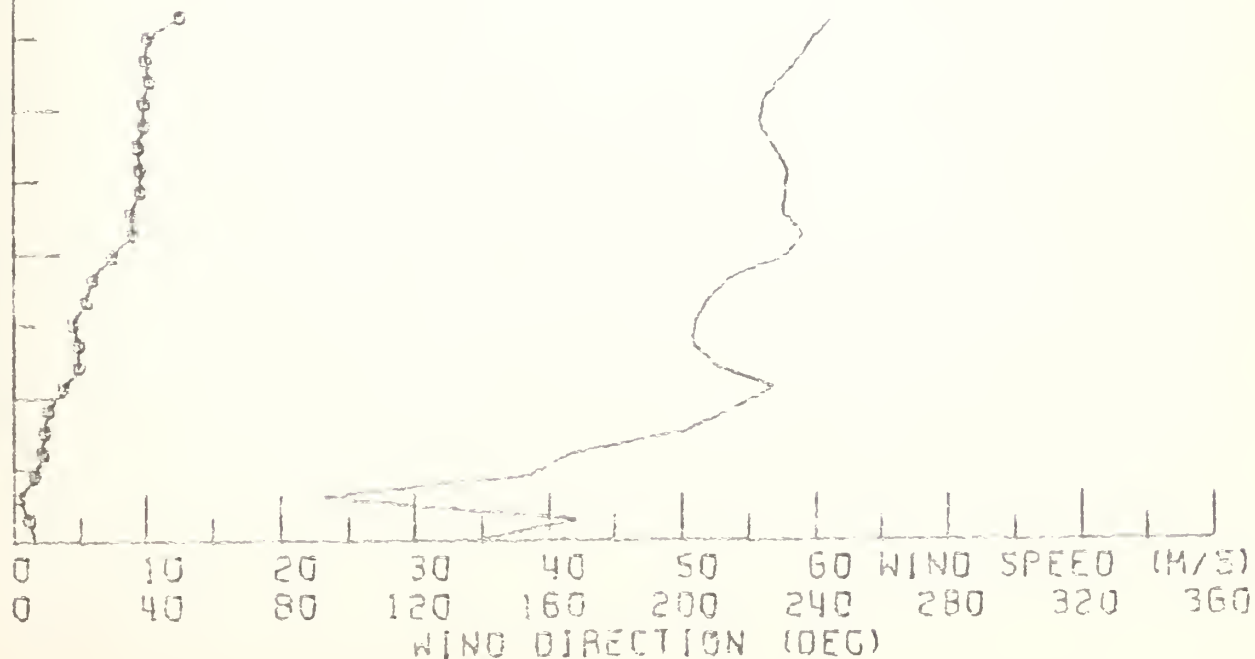
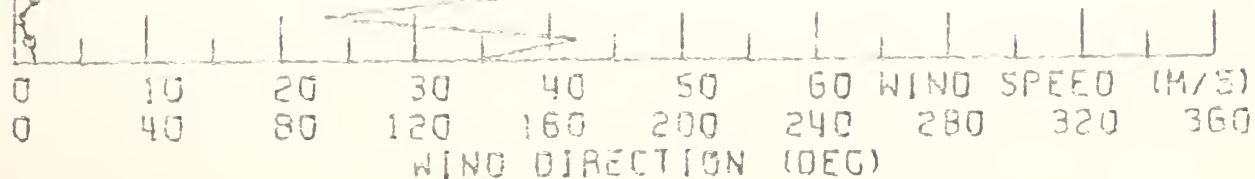


ALTITUDE/METERS X1000



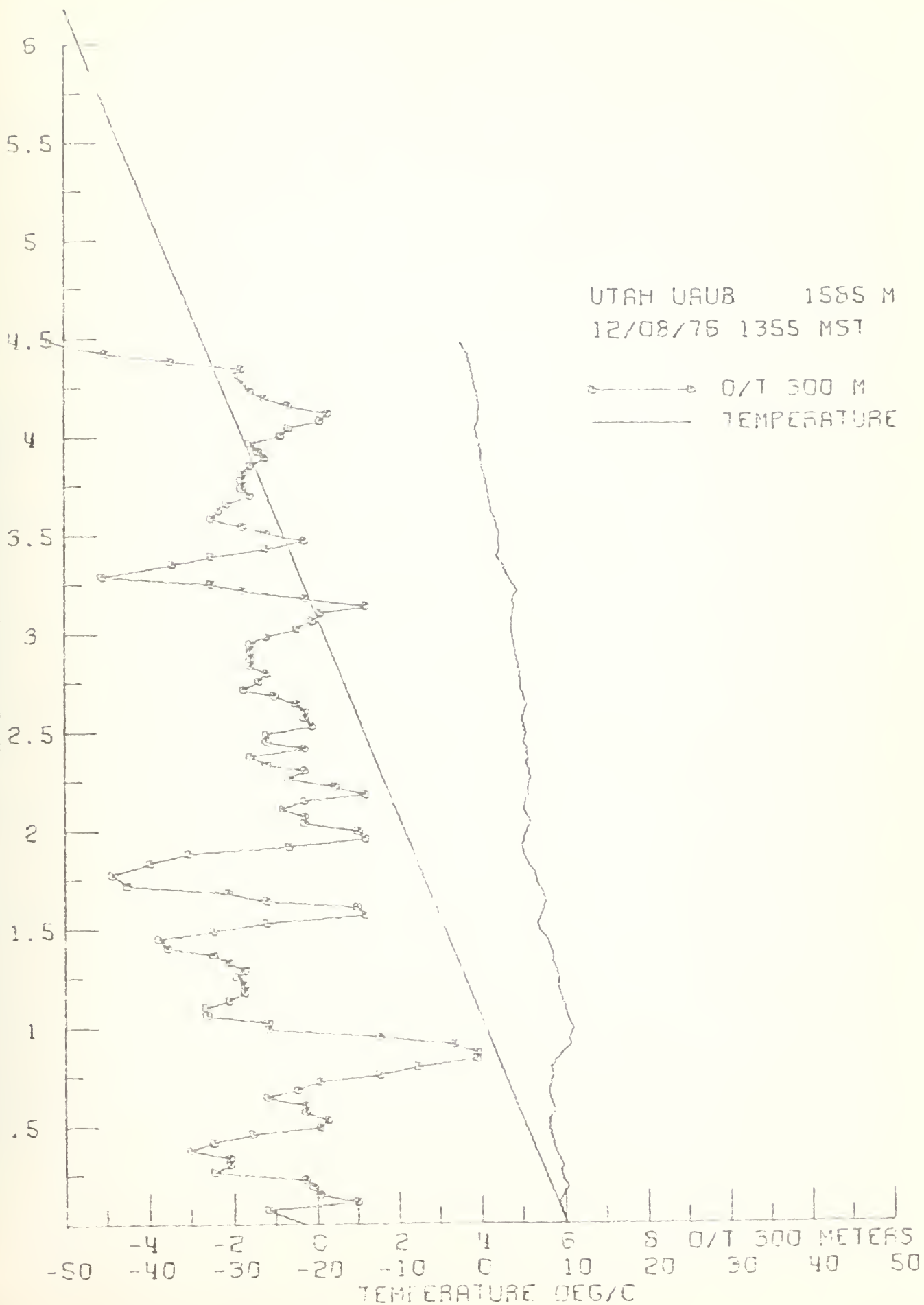
UTAH UFUB 1585 M  
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WIND SPEED  
WIND DIR

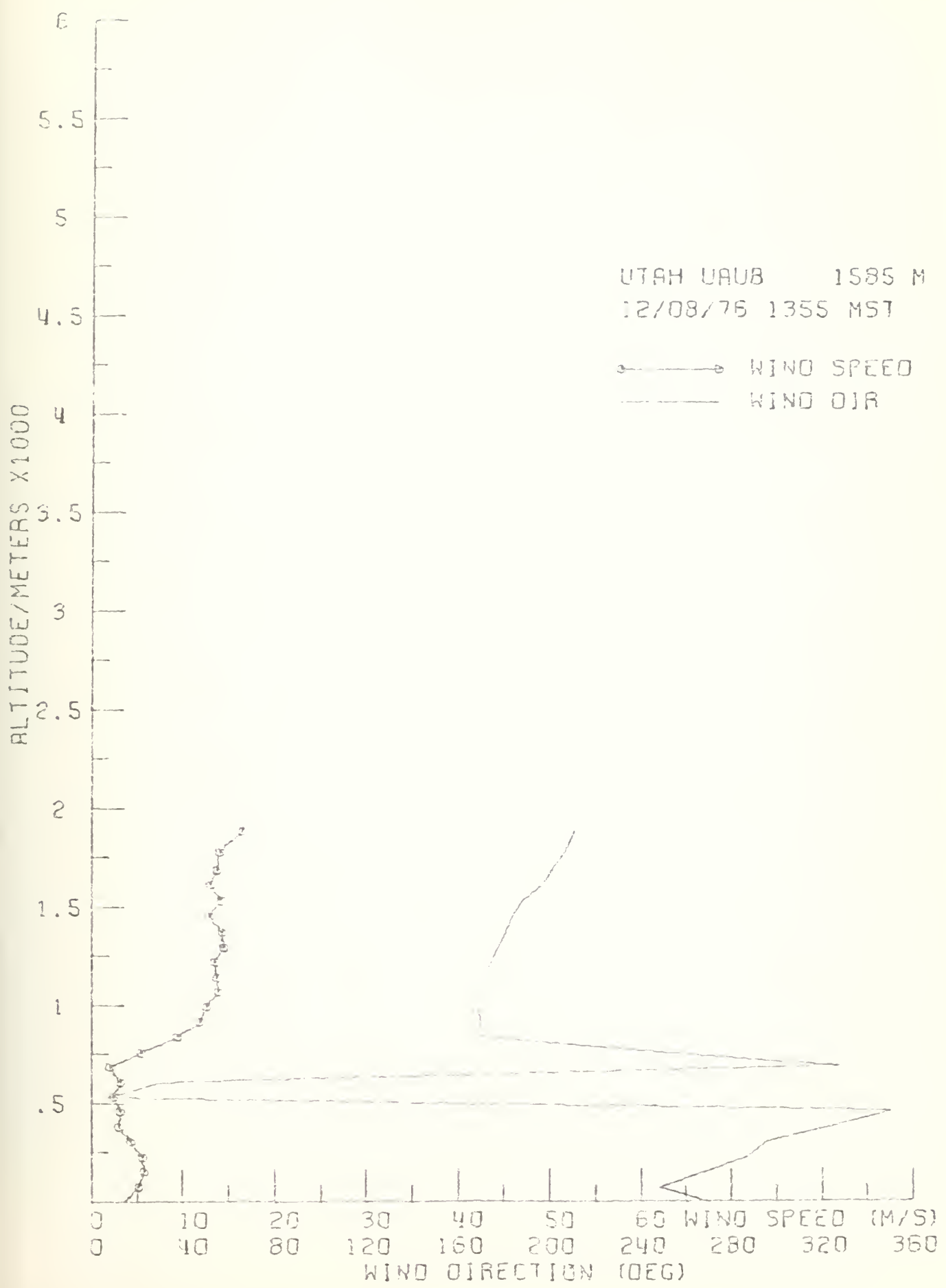




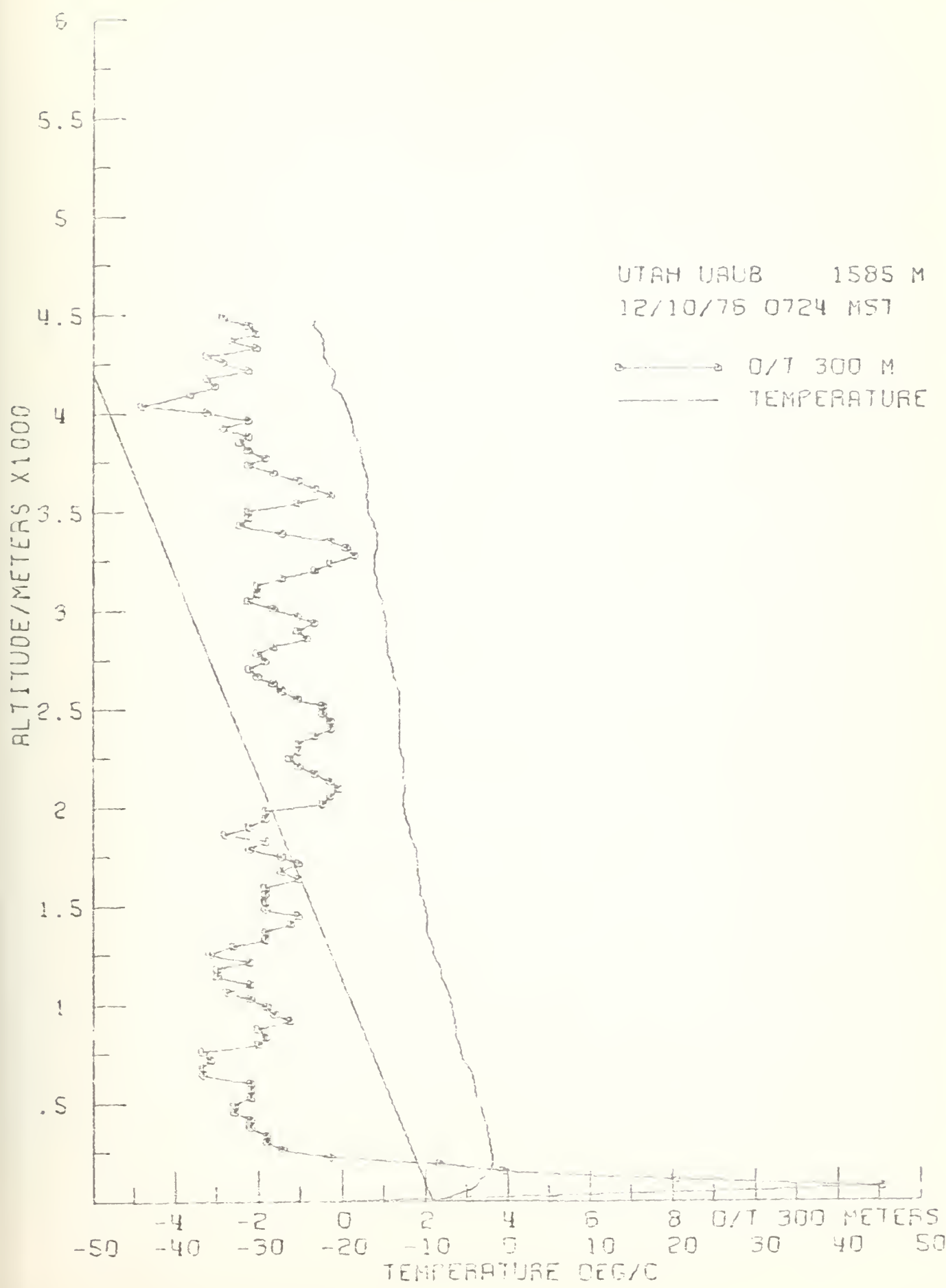
ALTITUDE/METERS X1000





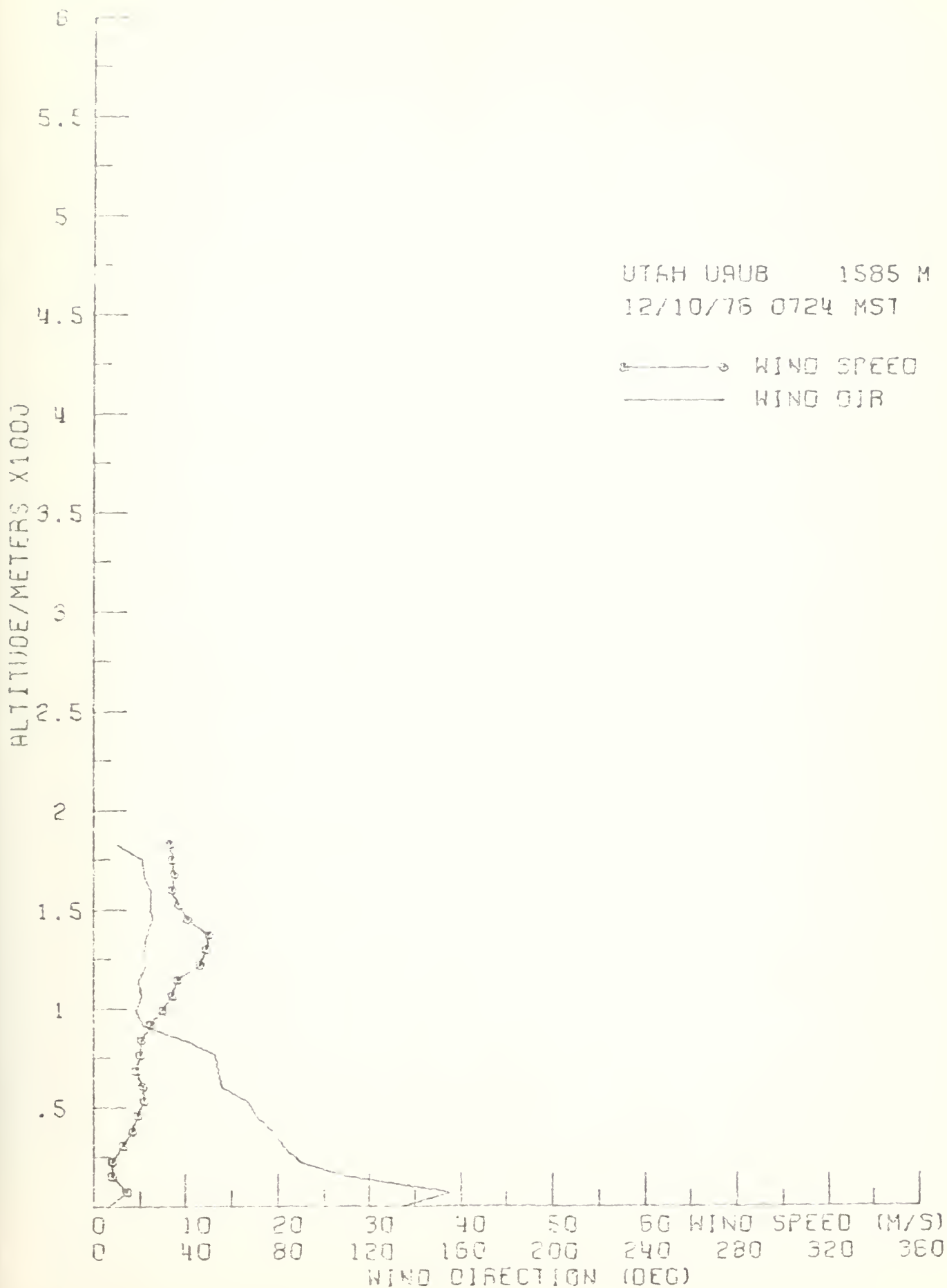




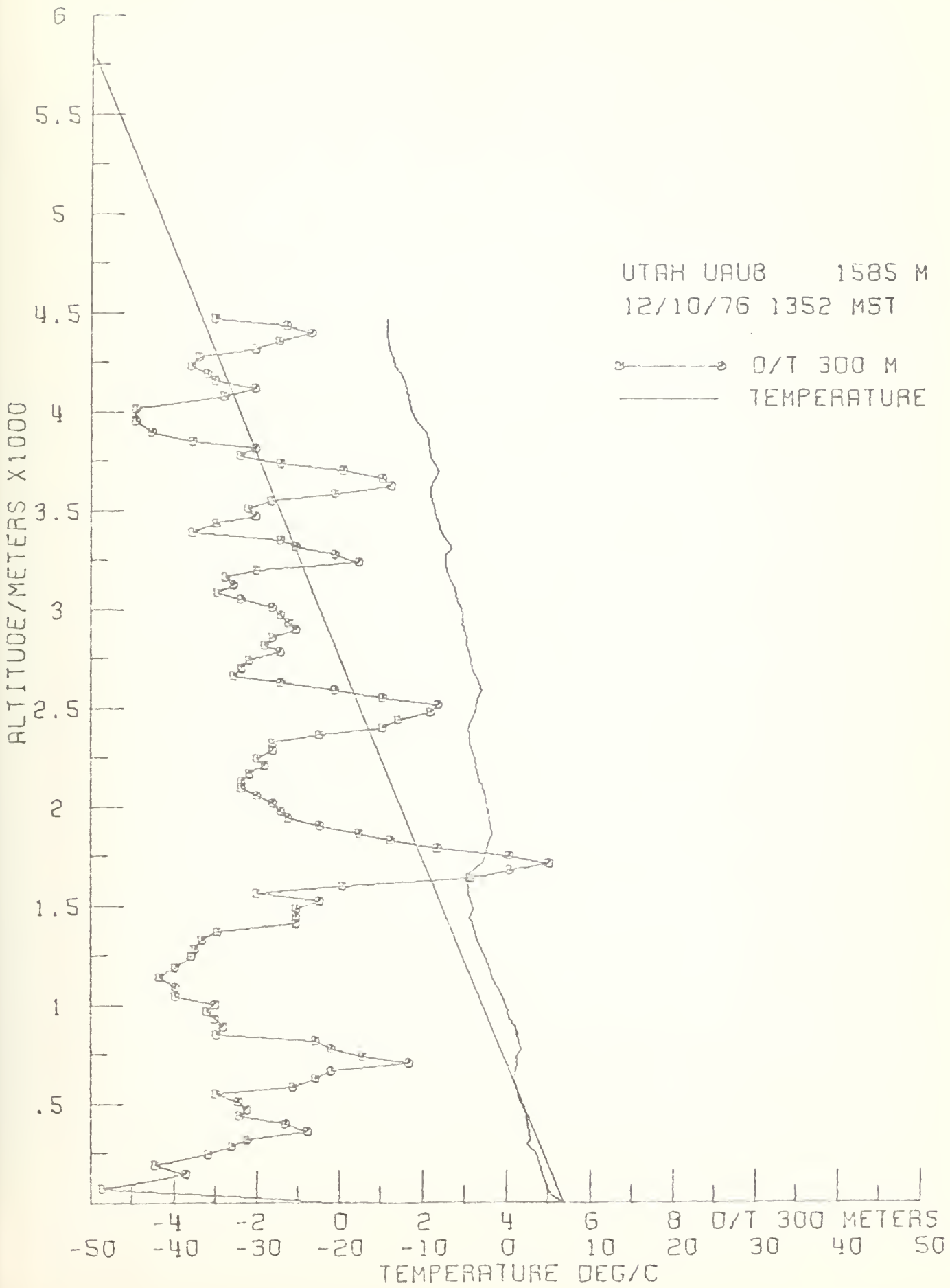




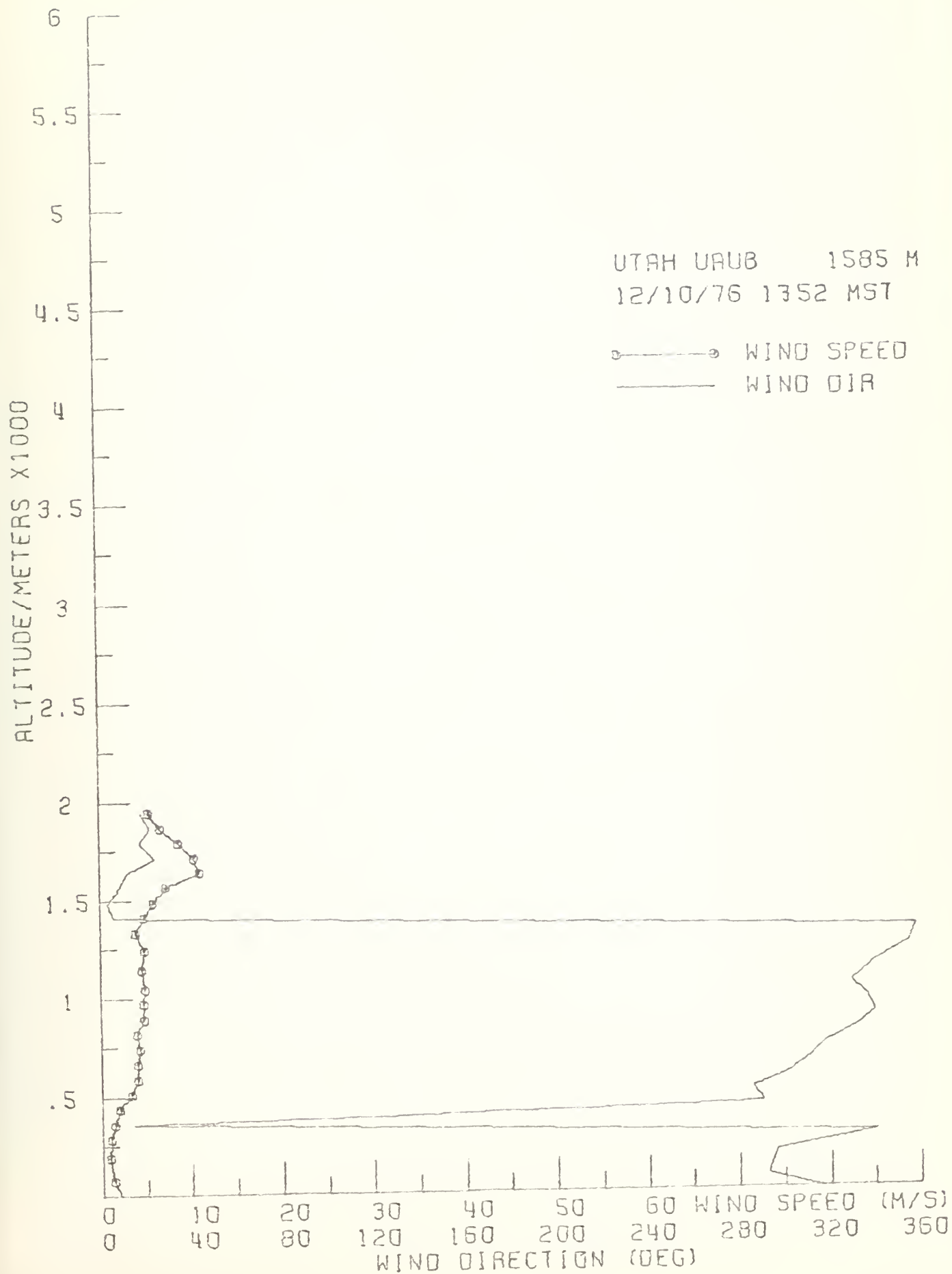




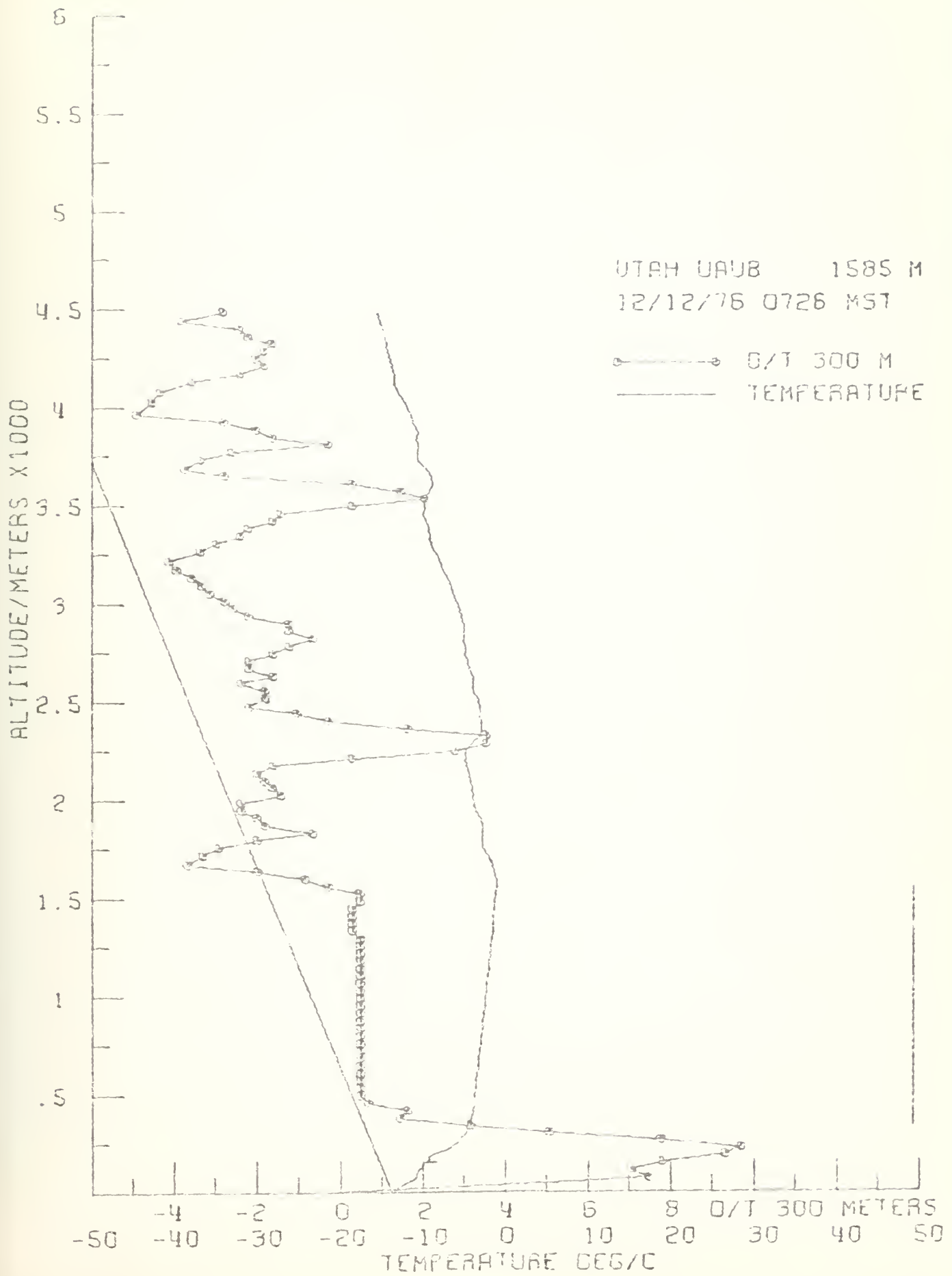






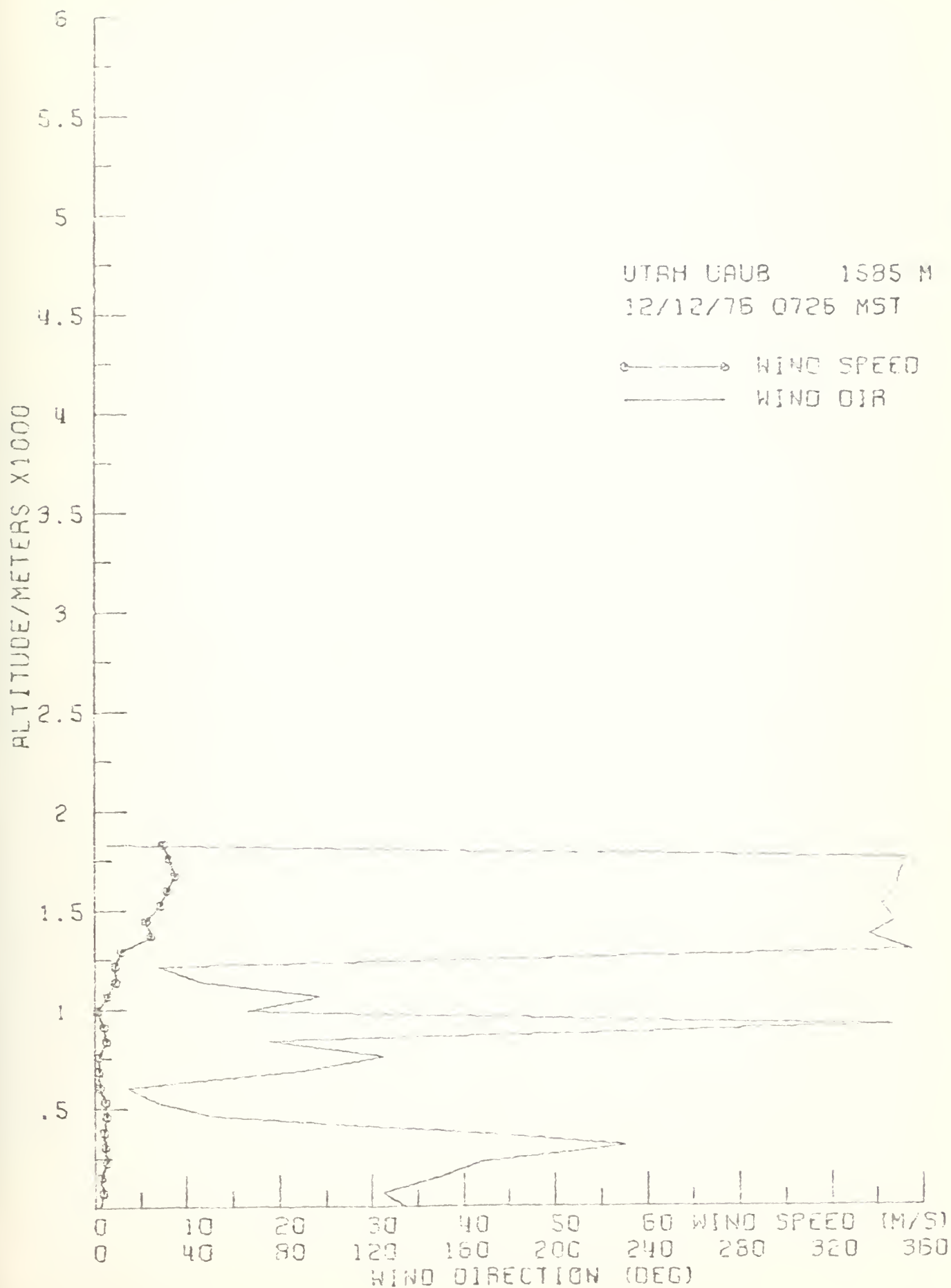




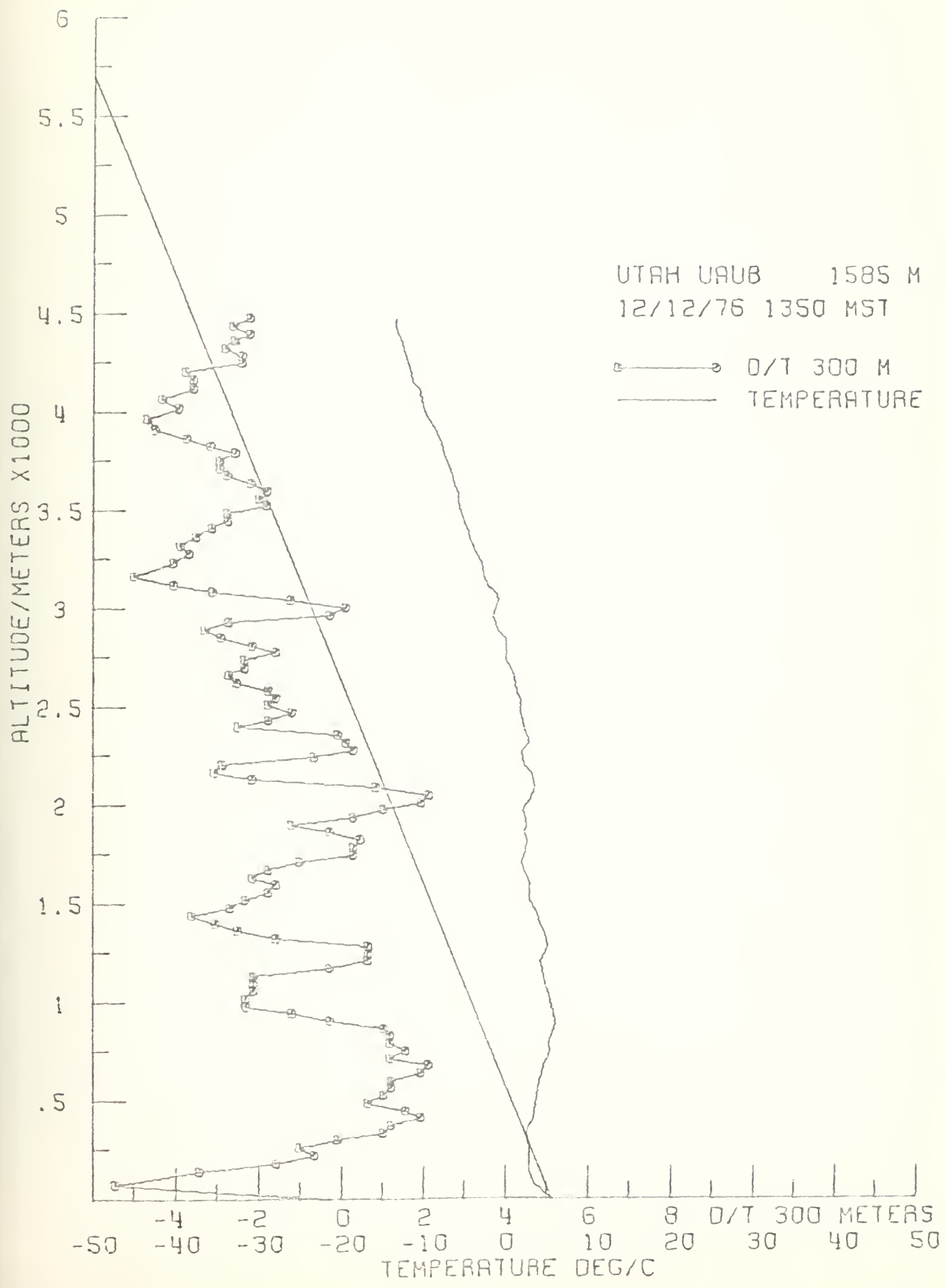




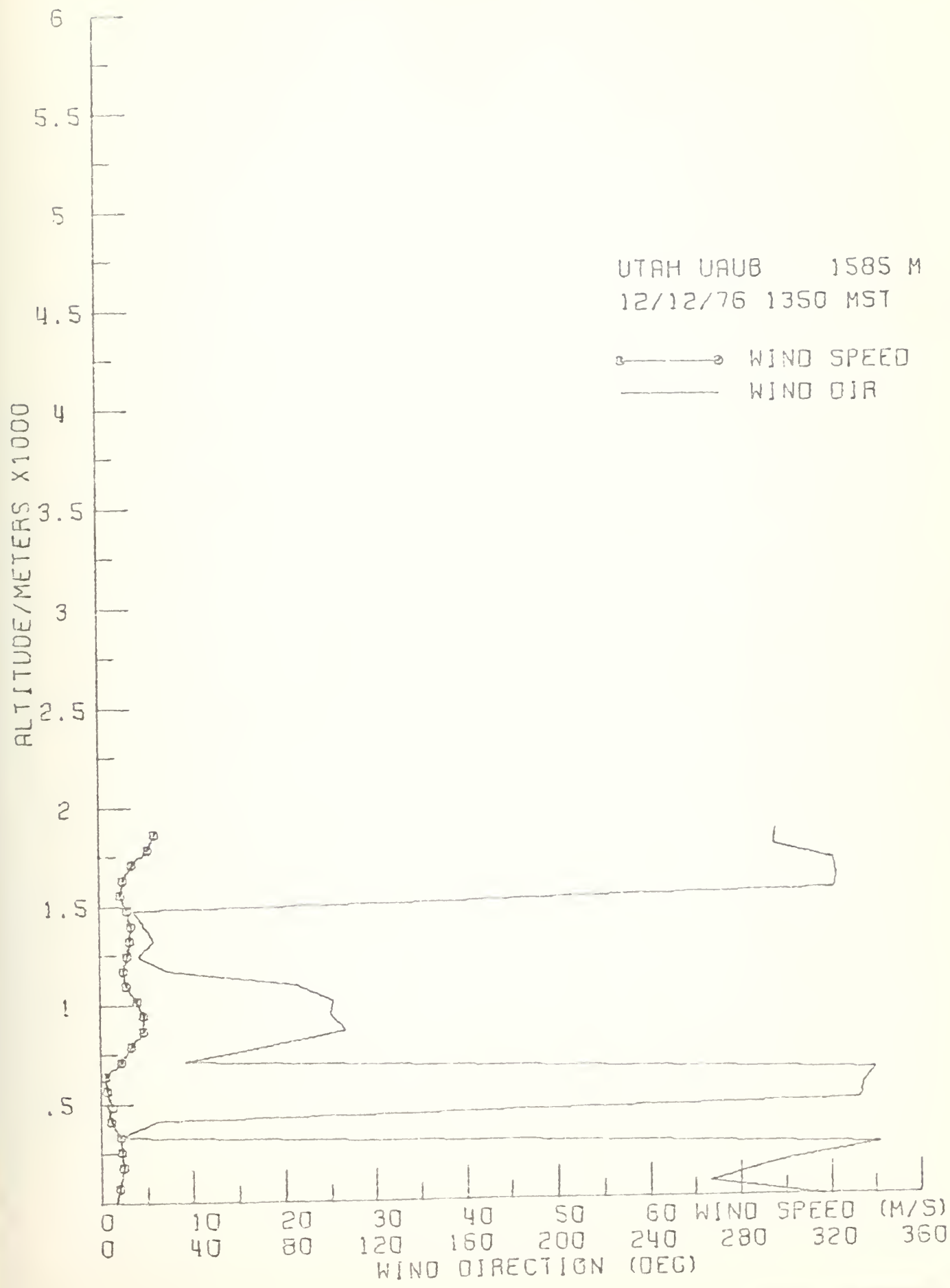




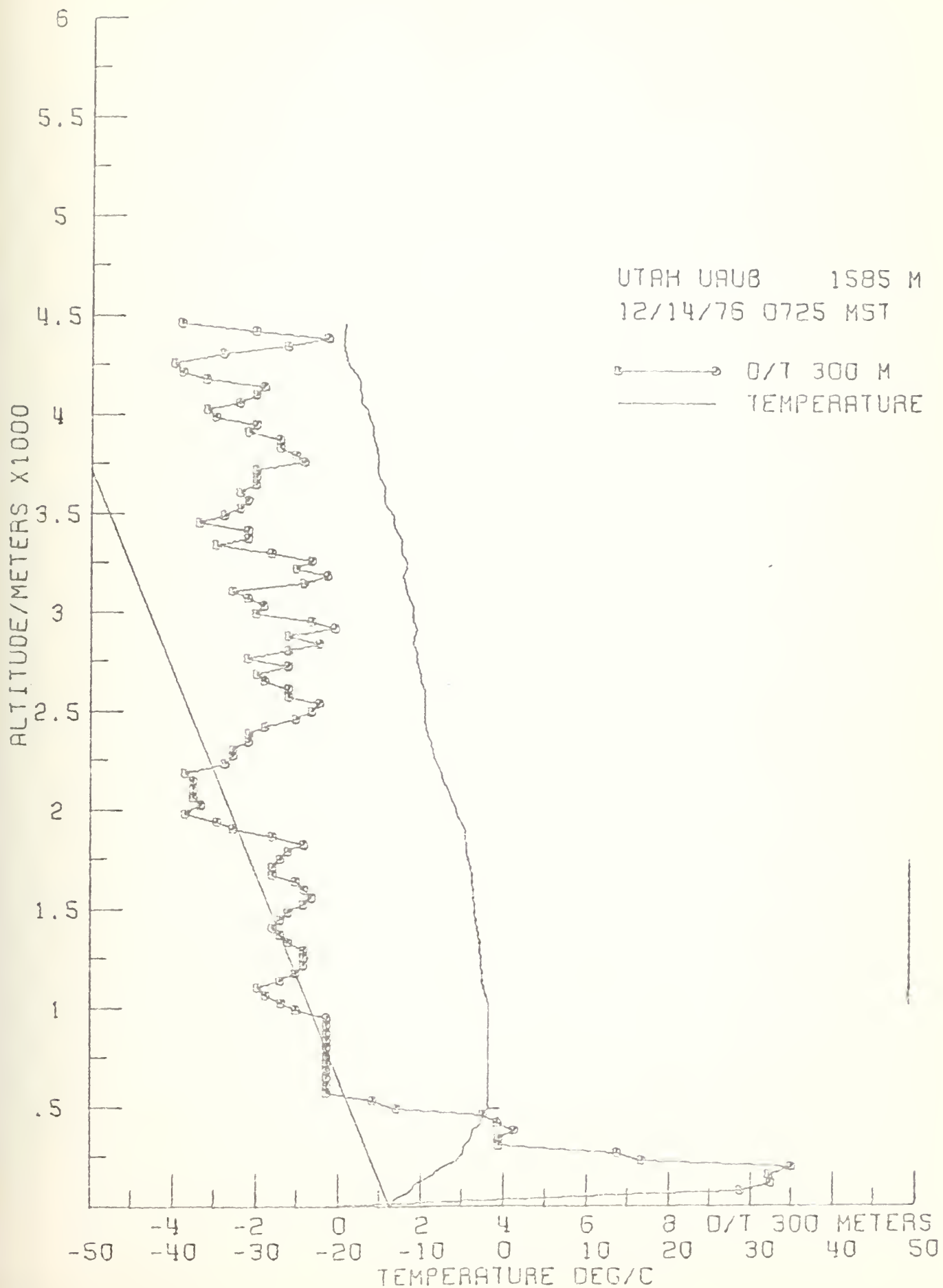






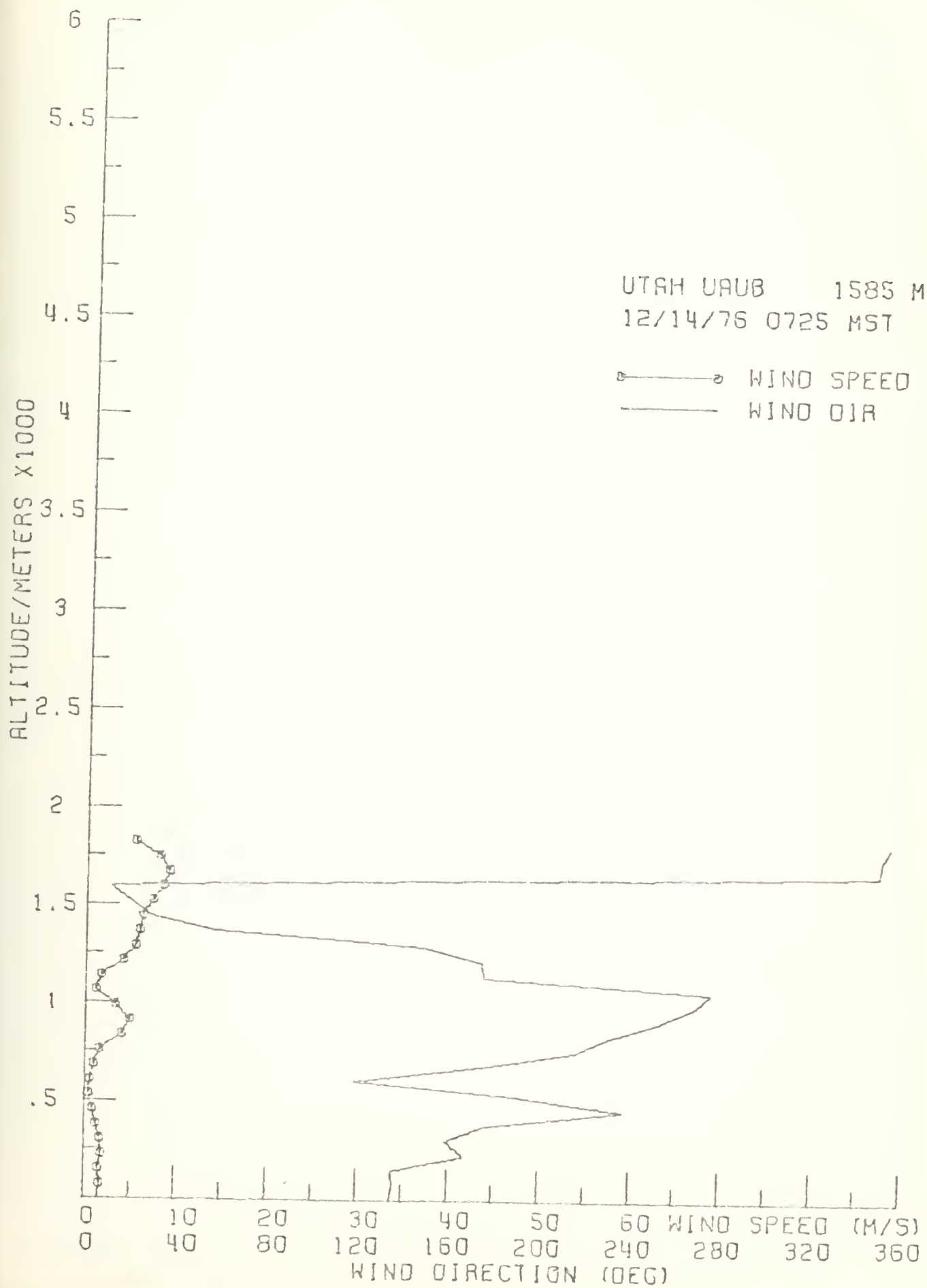




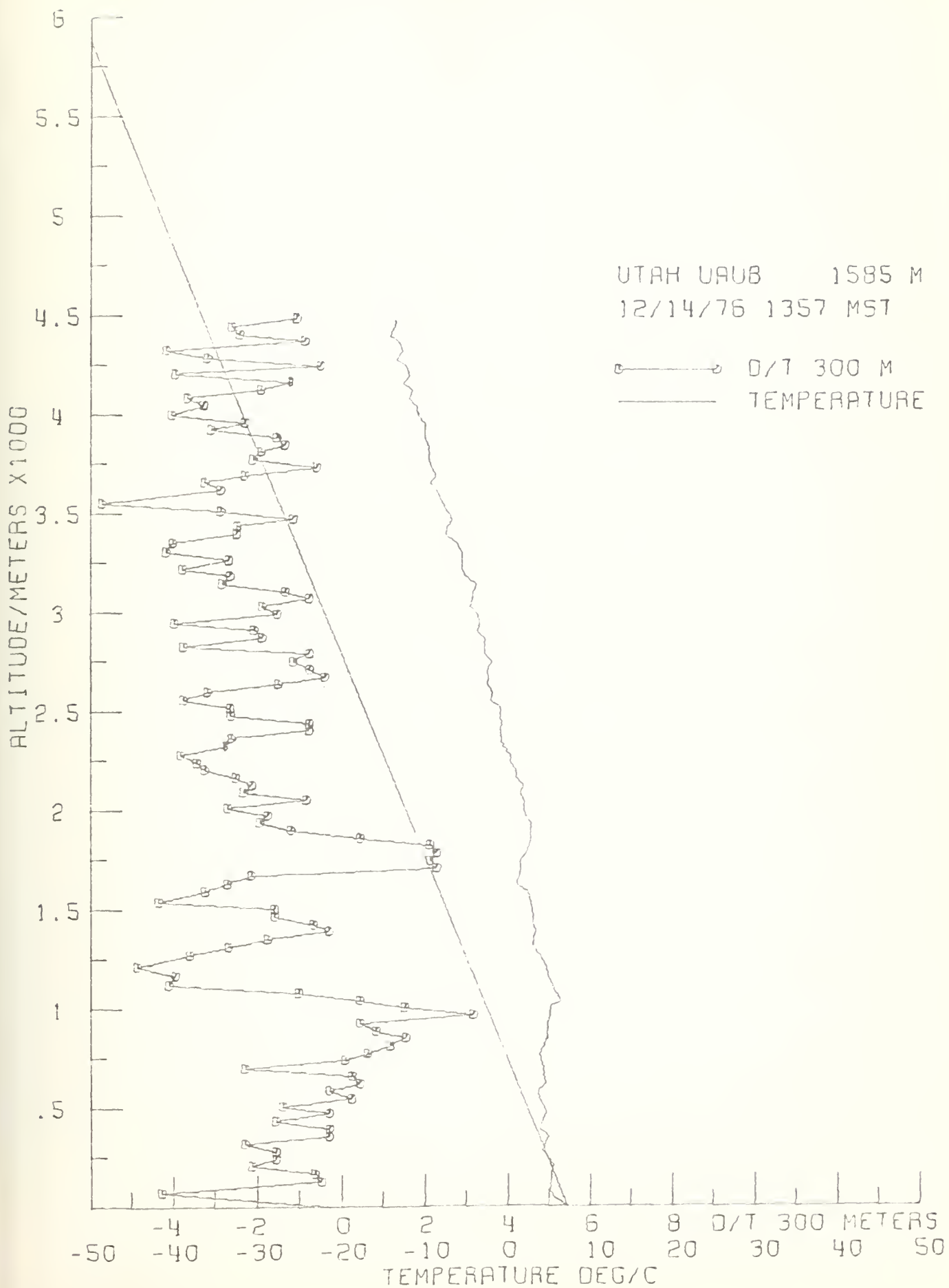




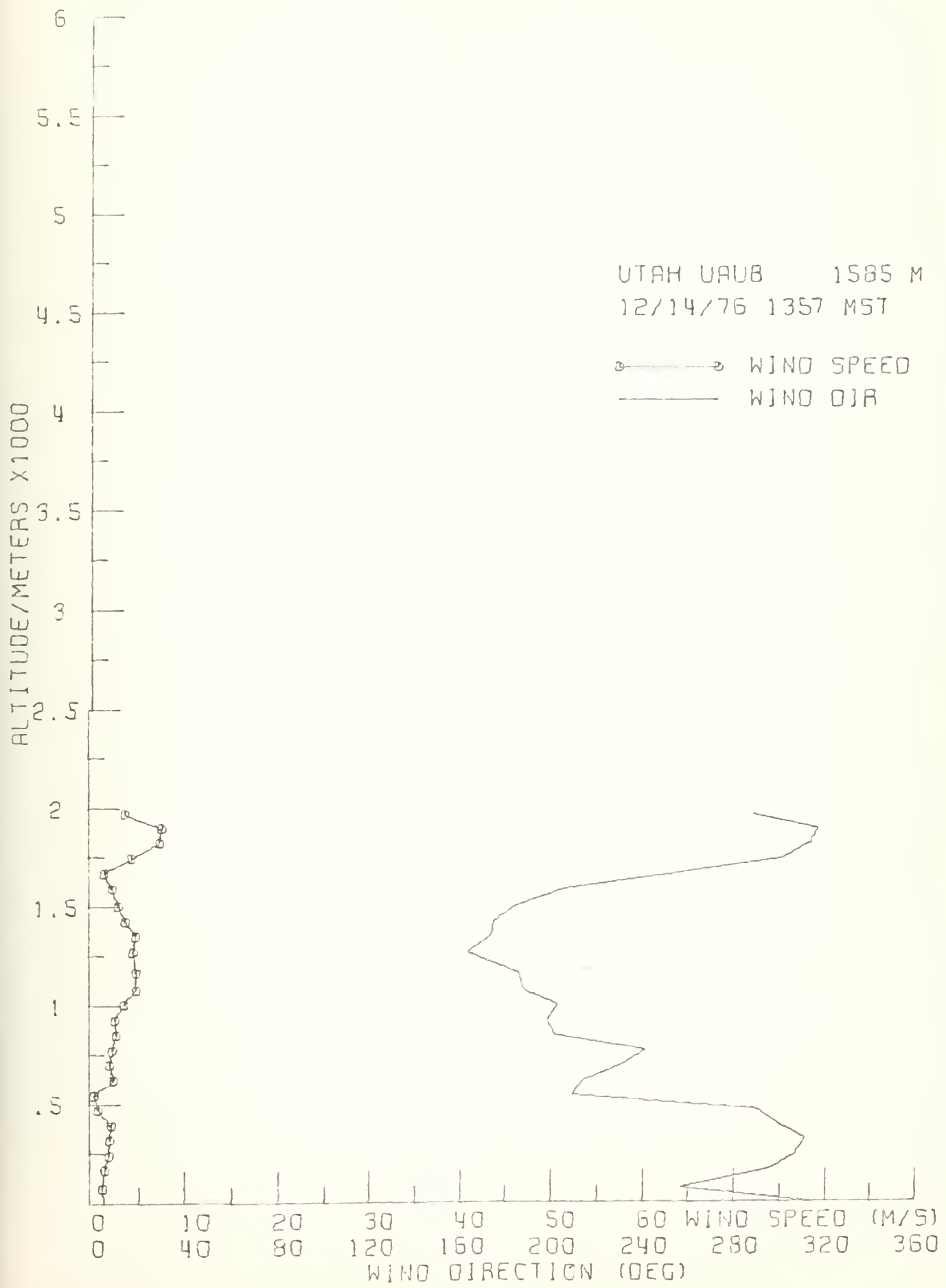




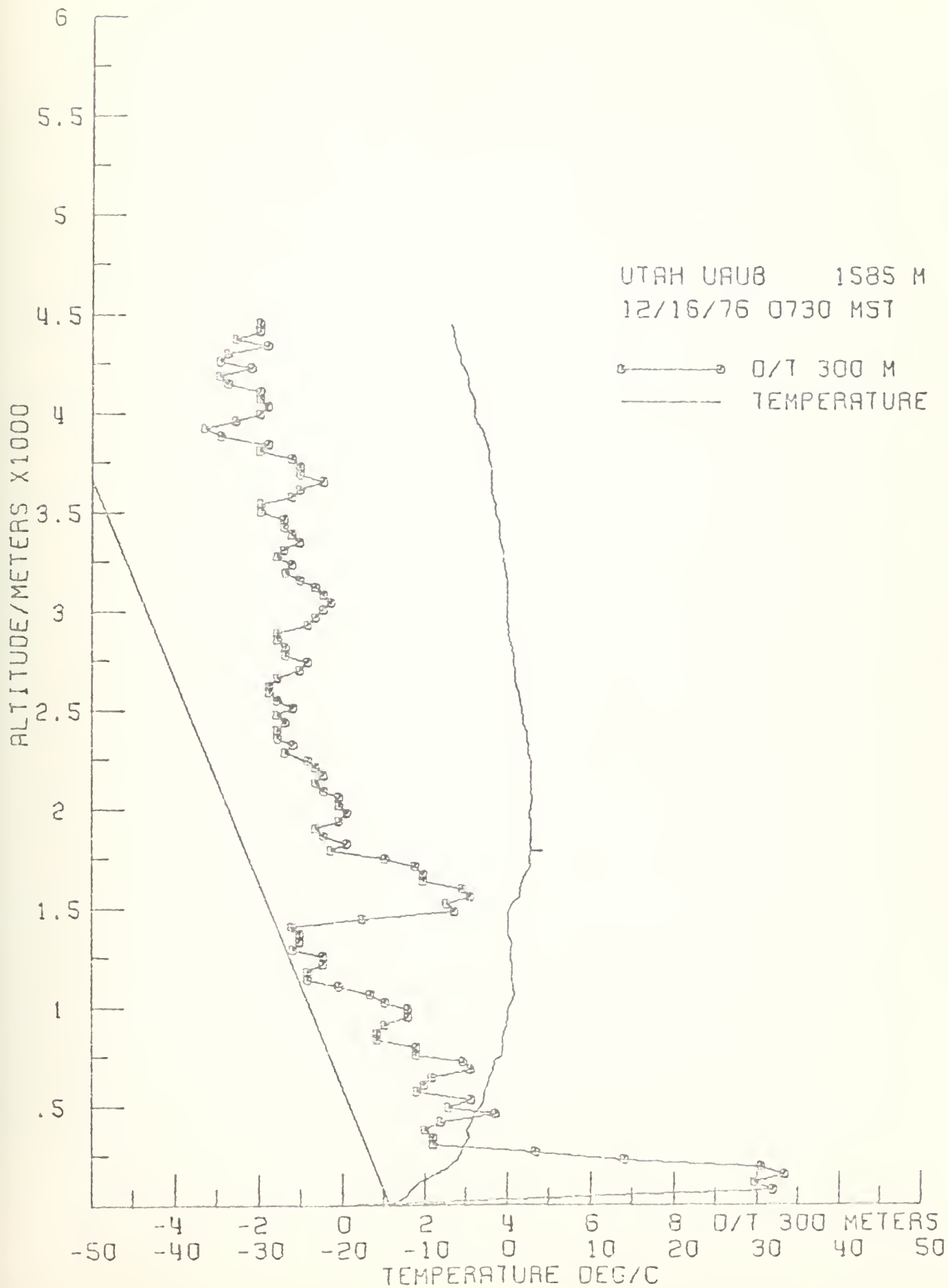






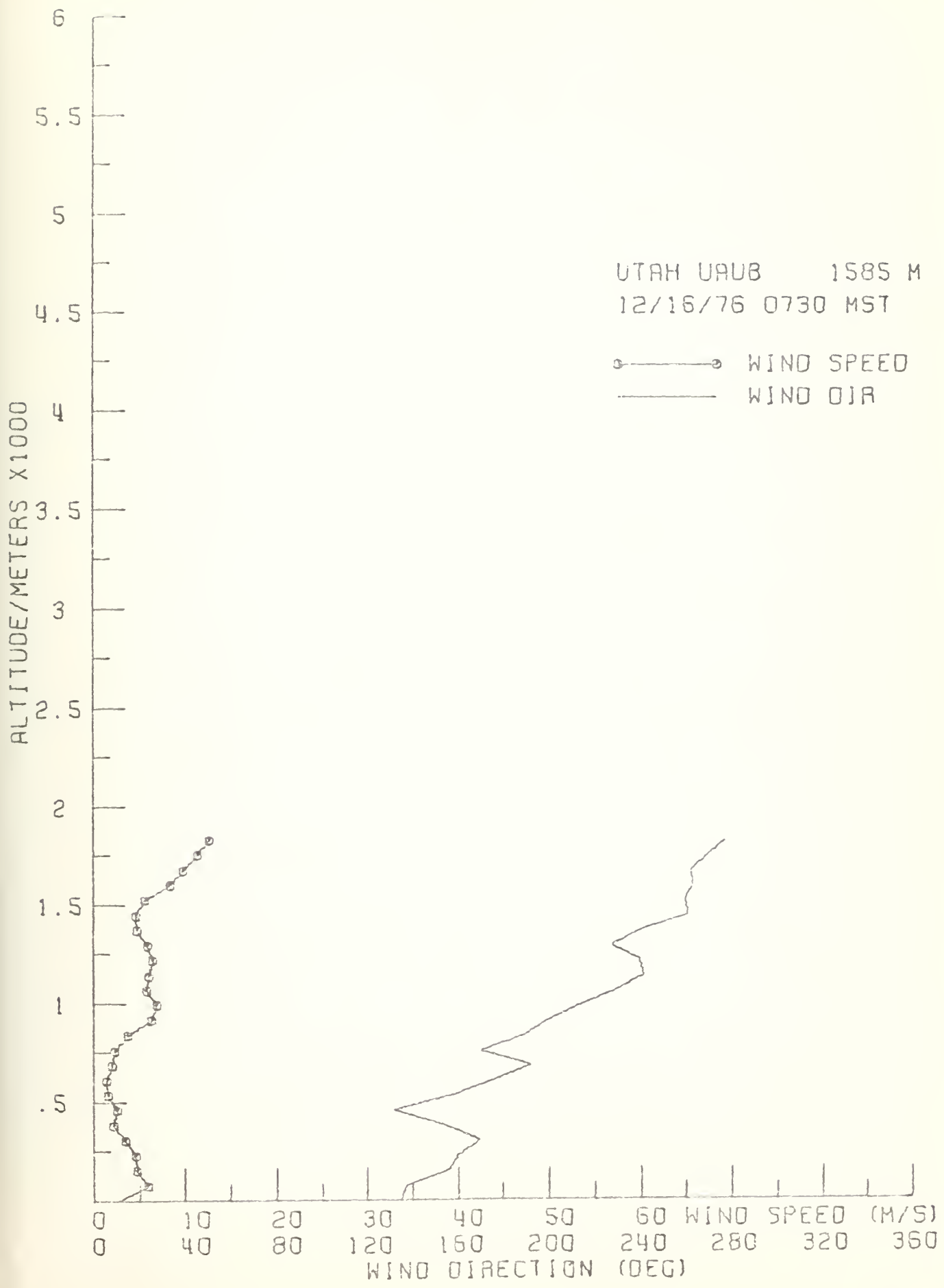




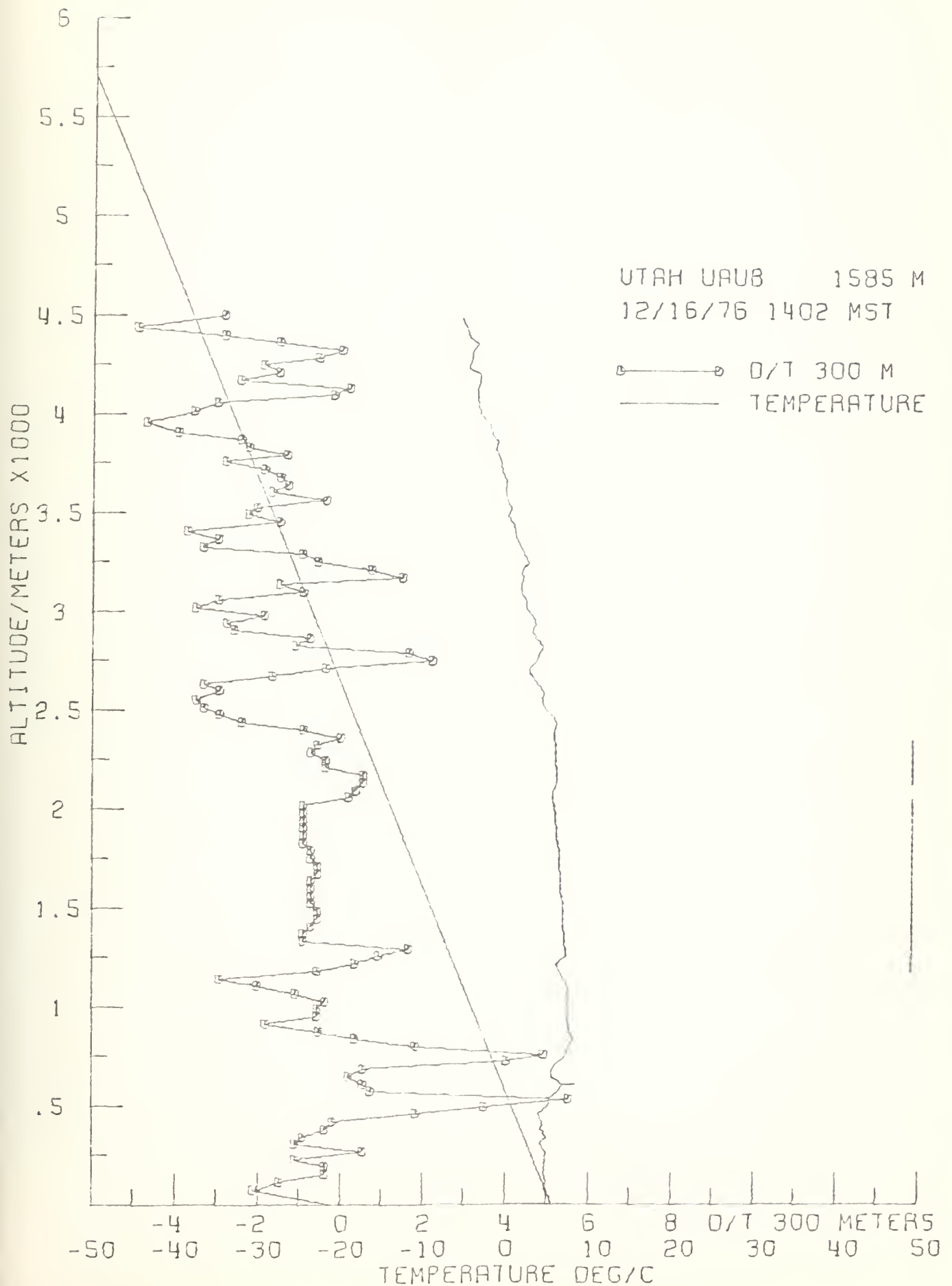




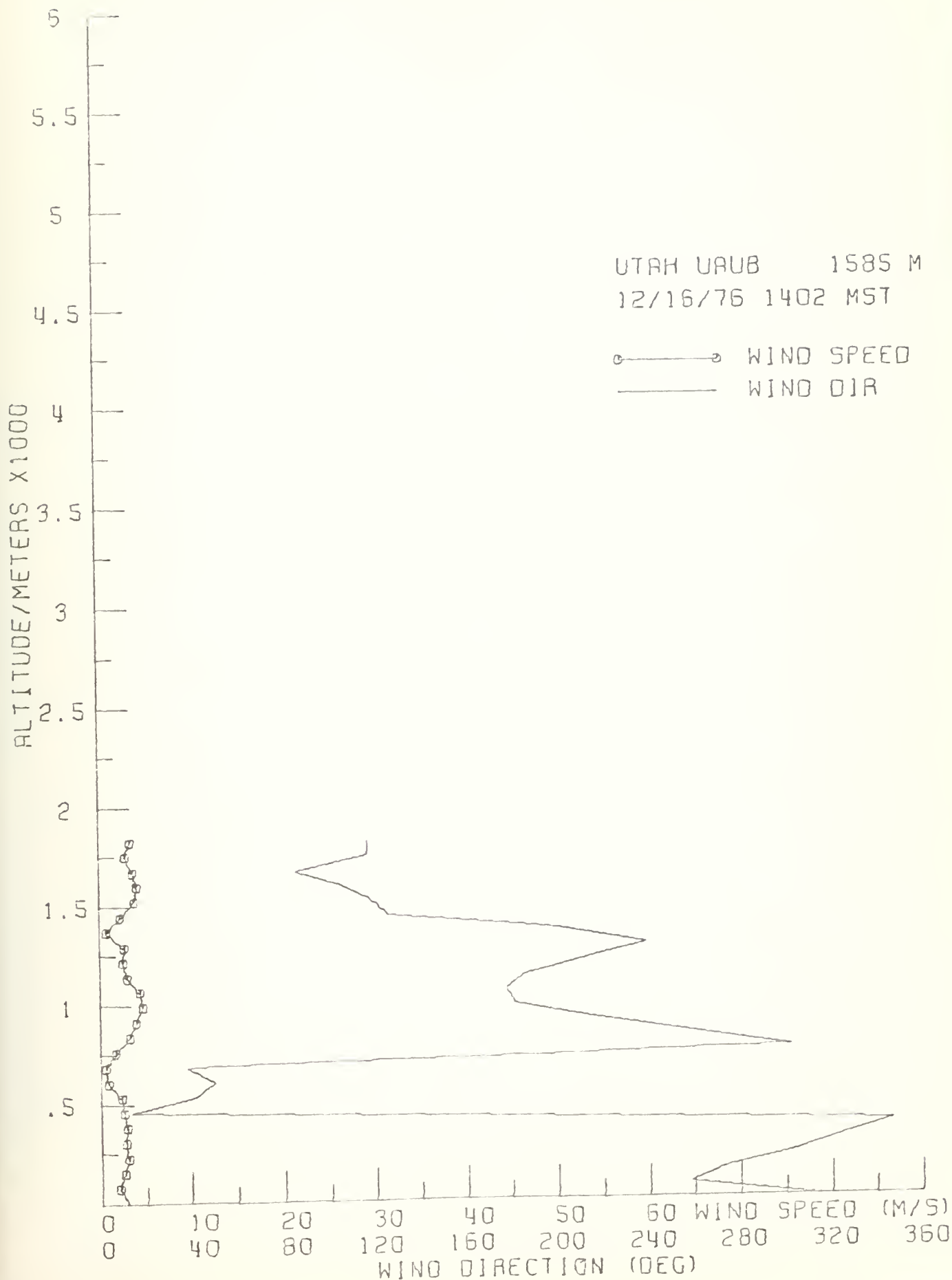




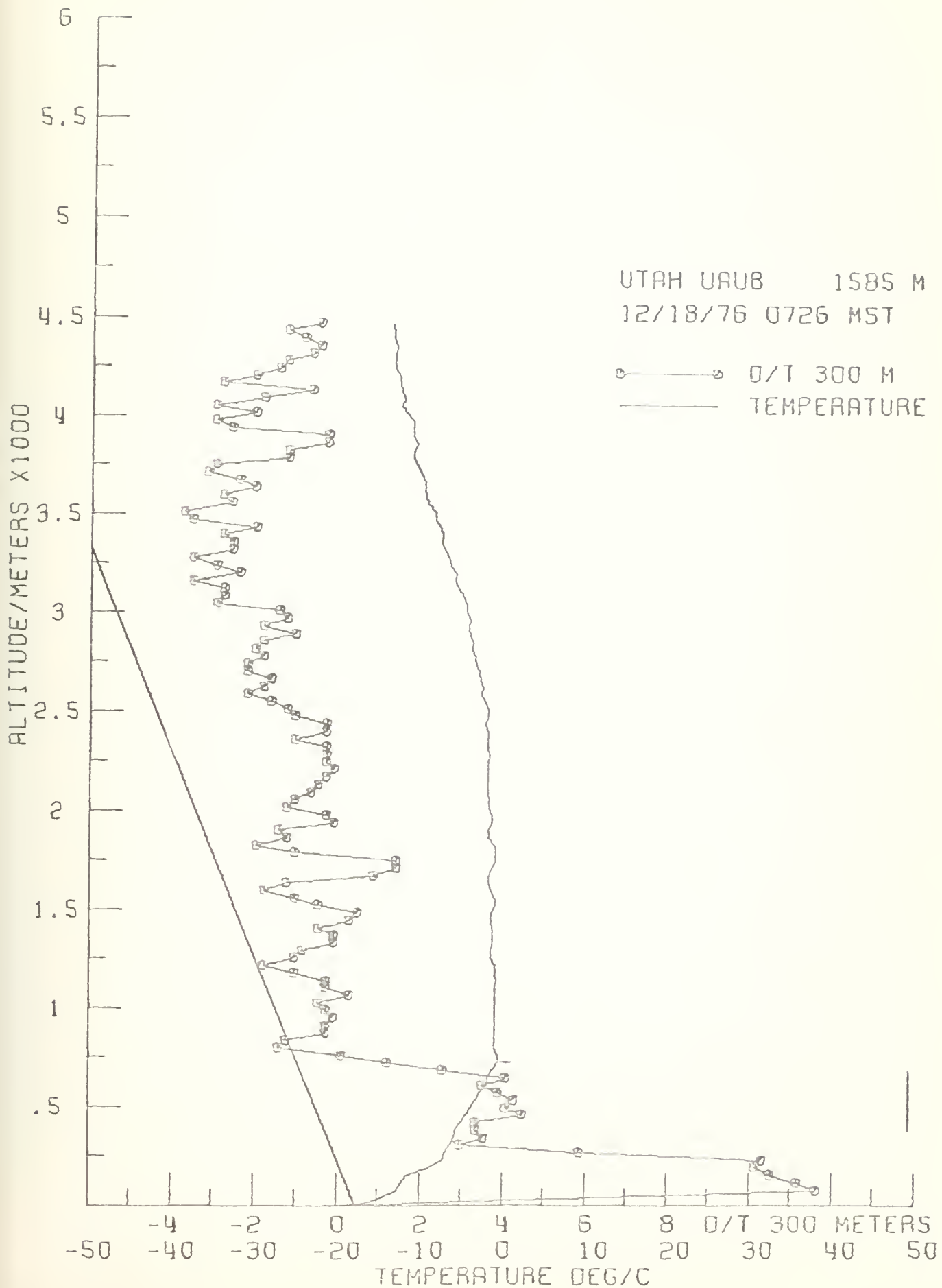






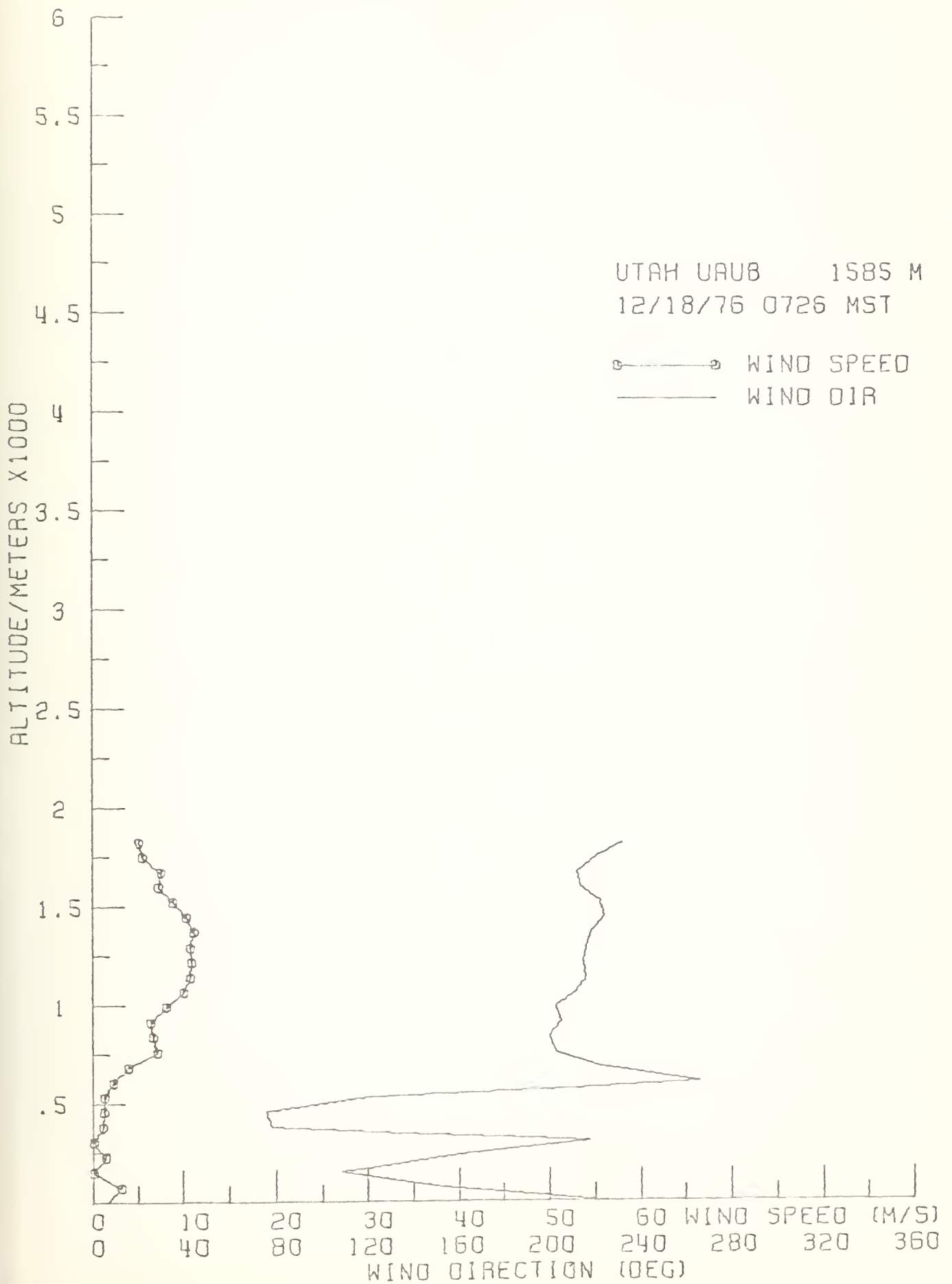




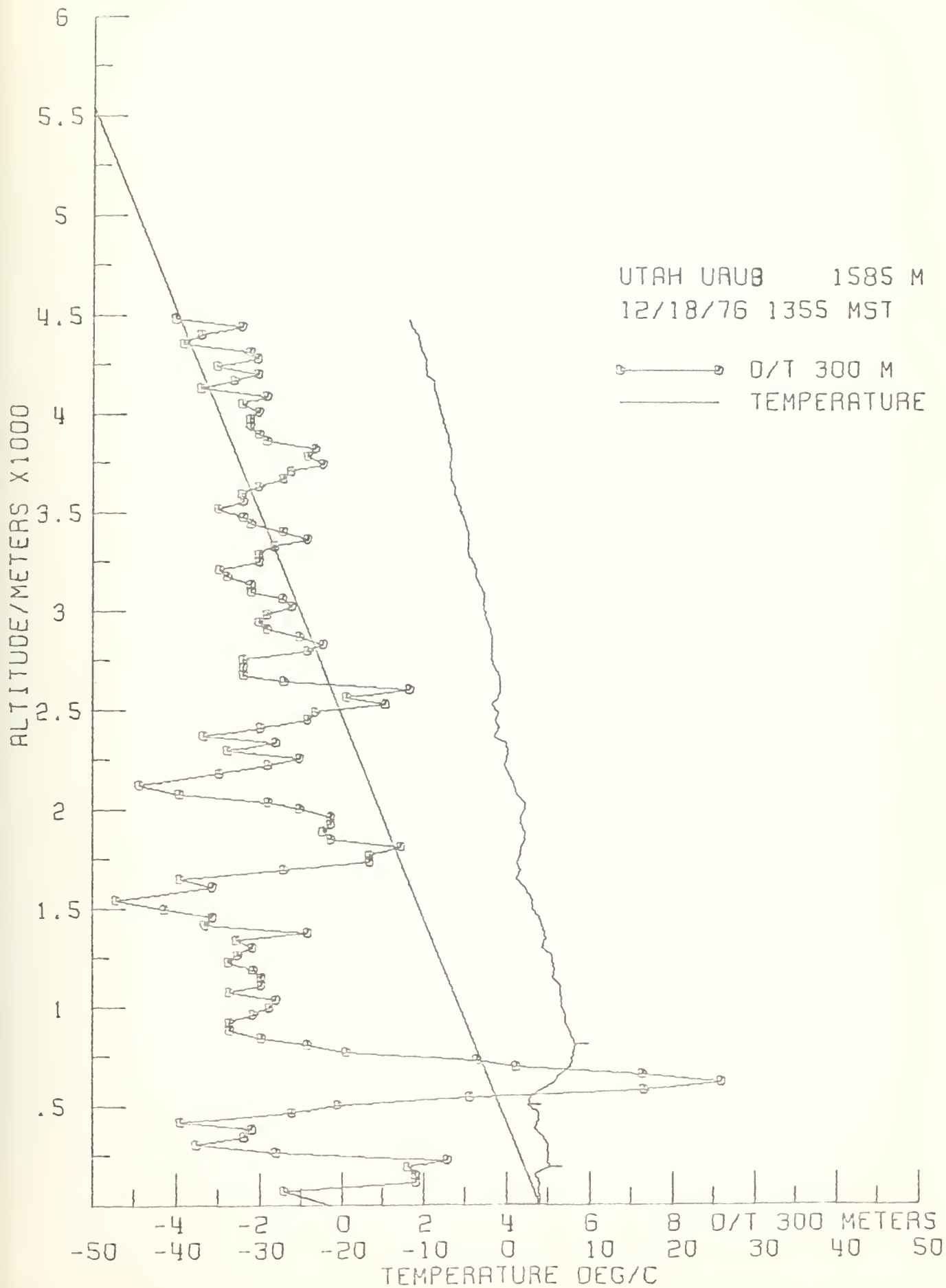




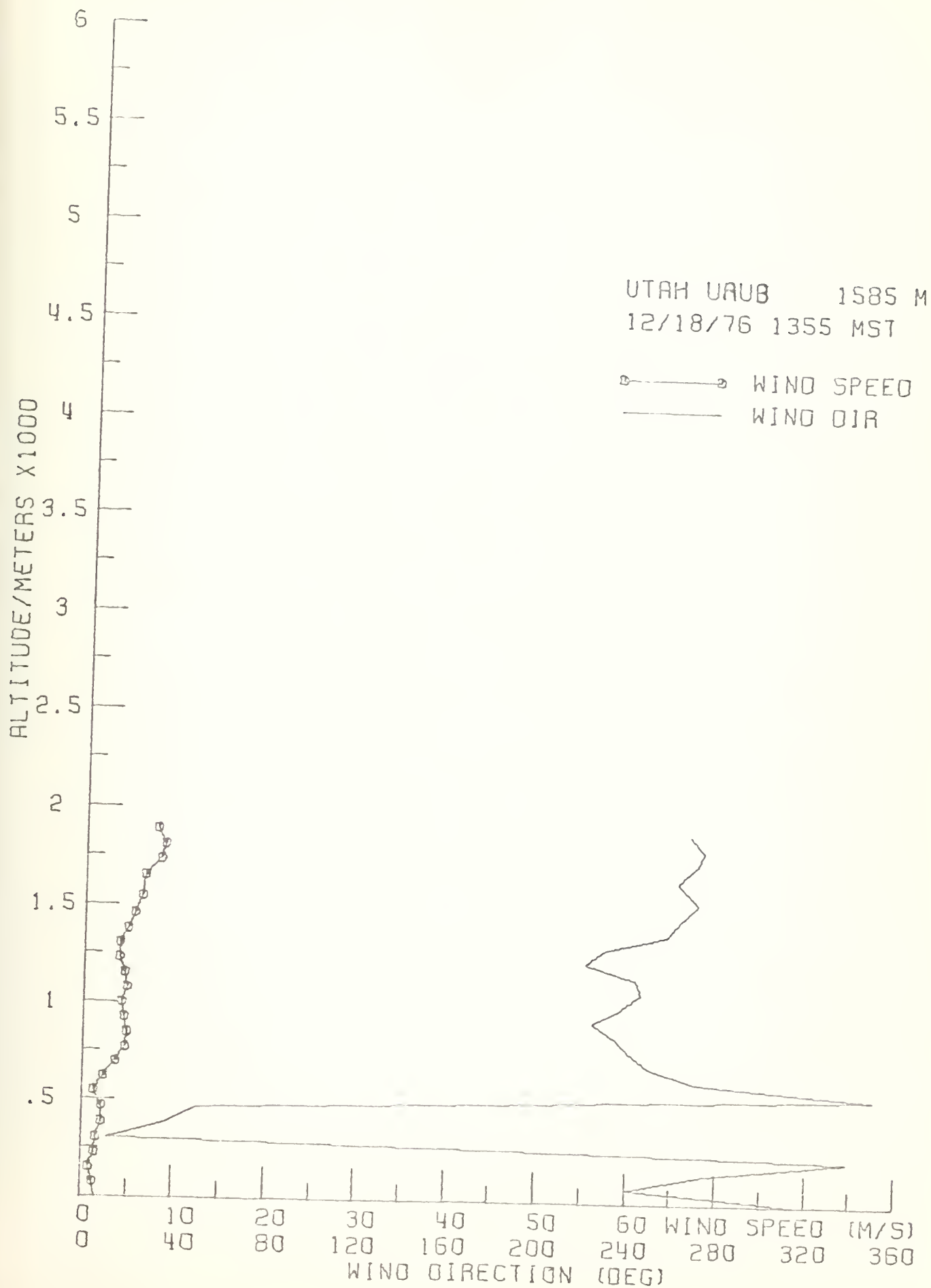




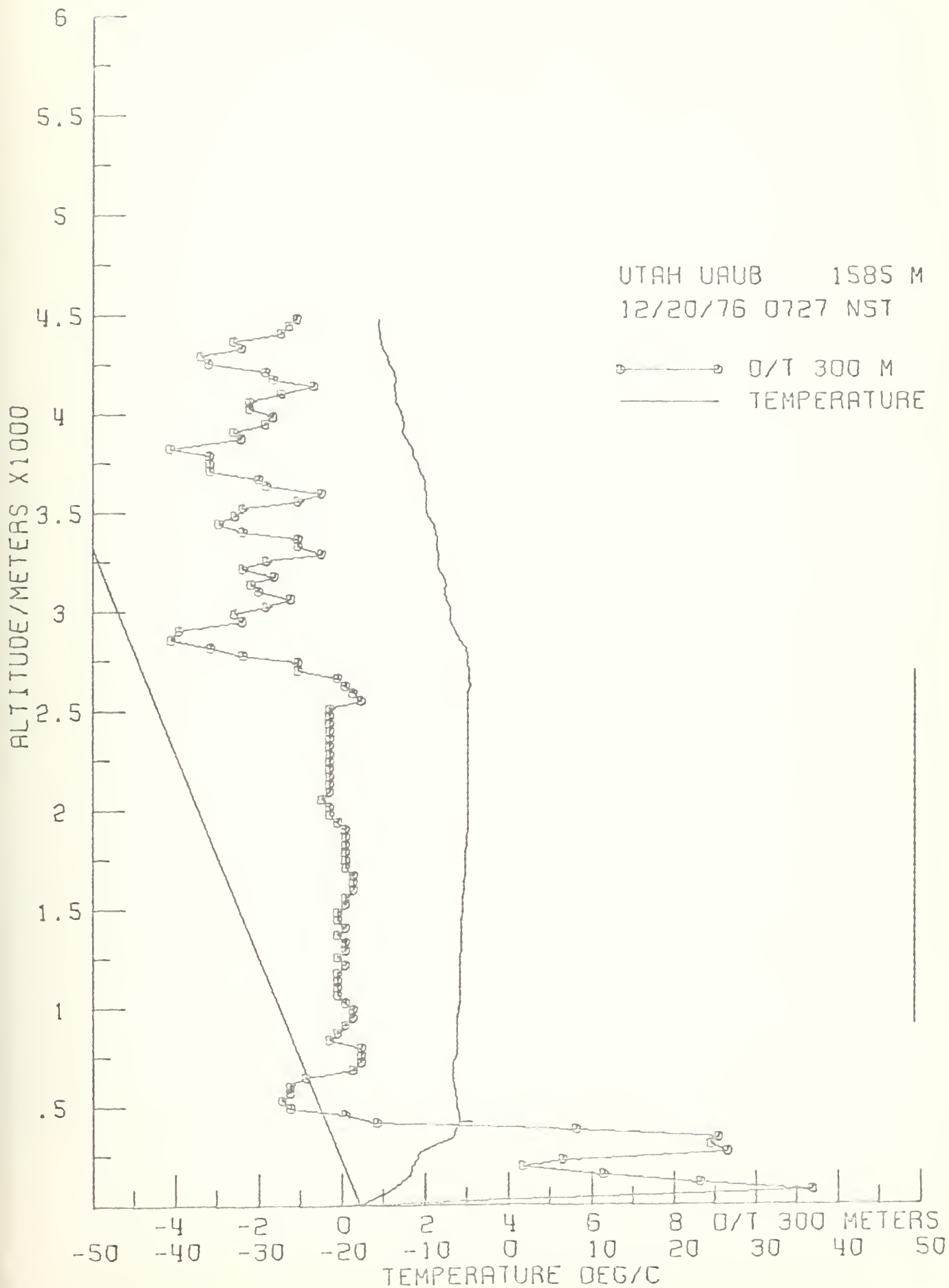






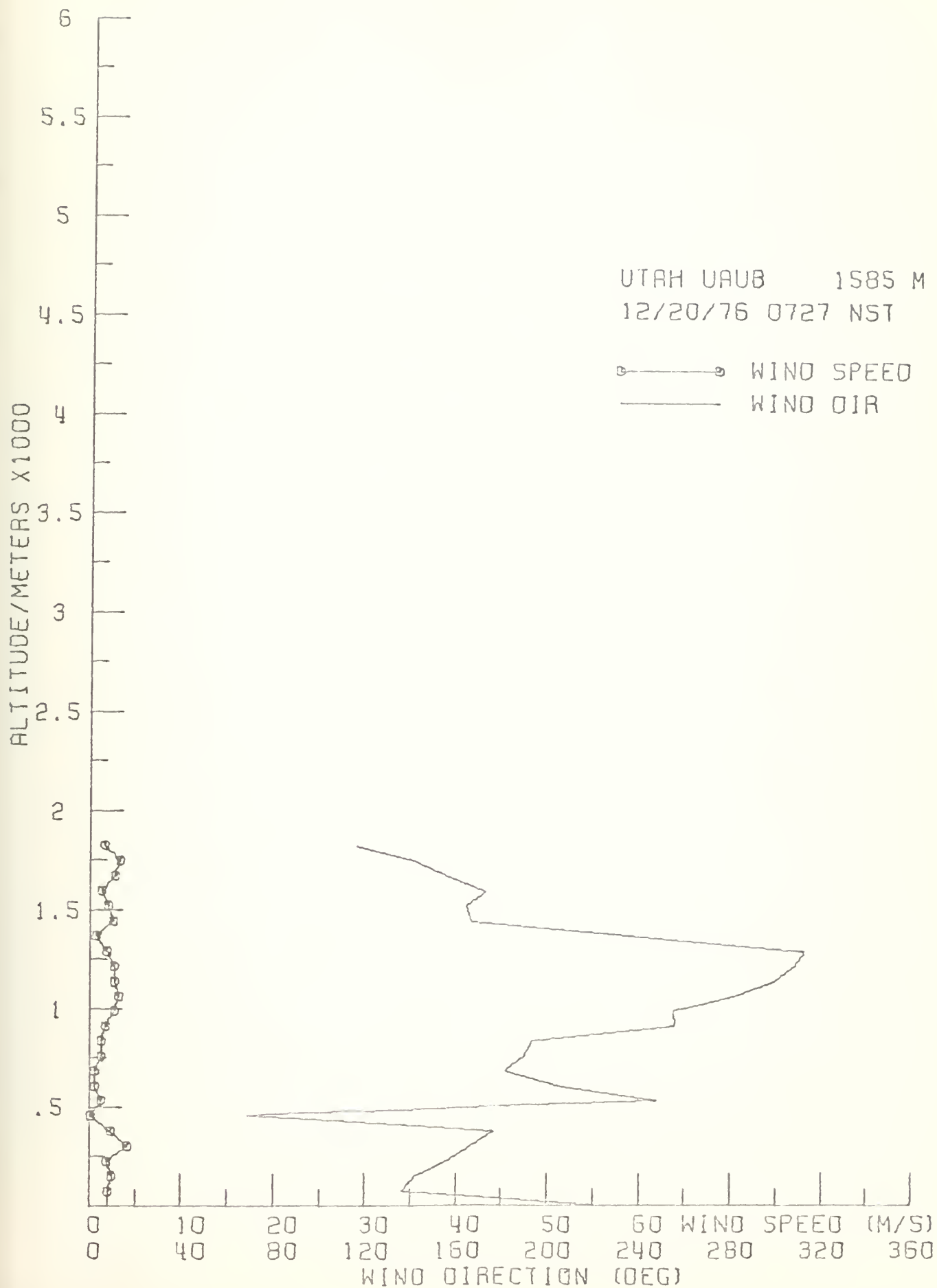




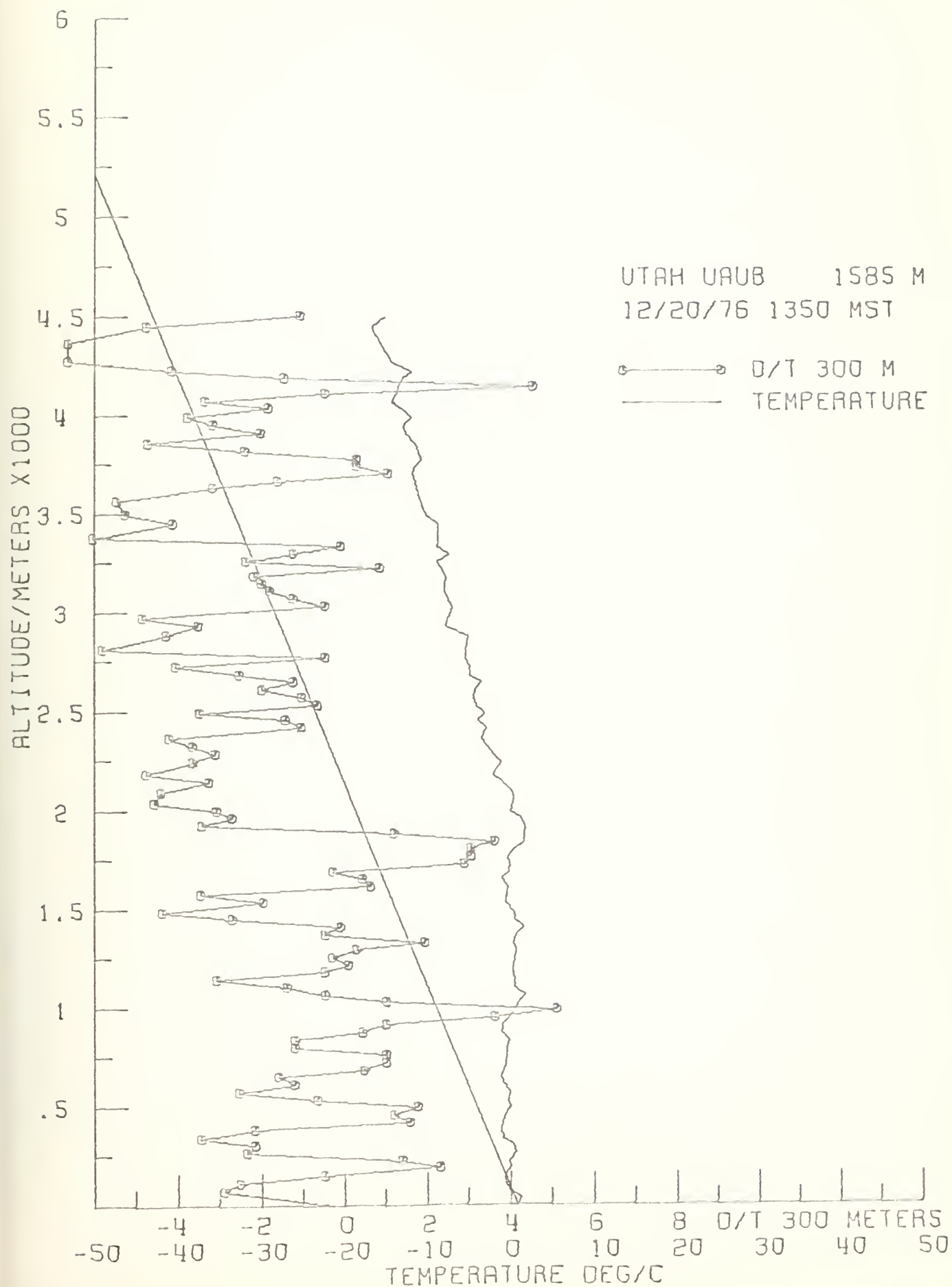




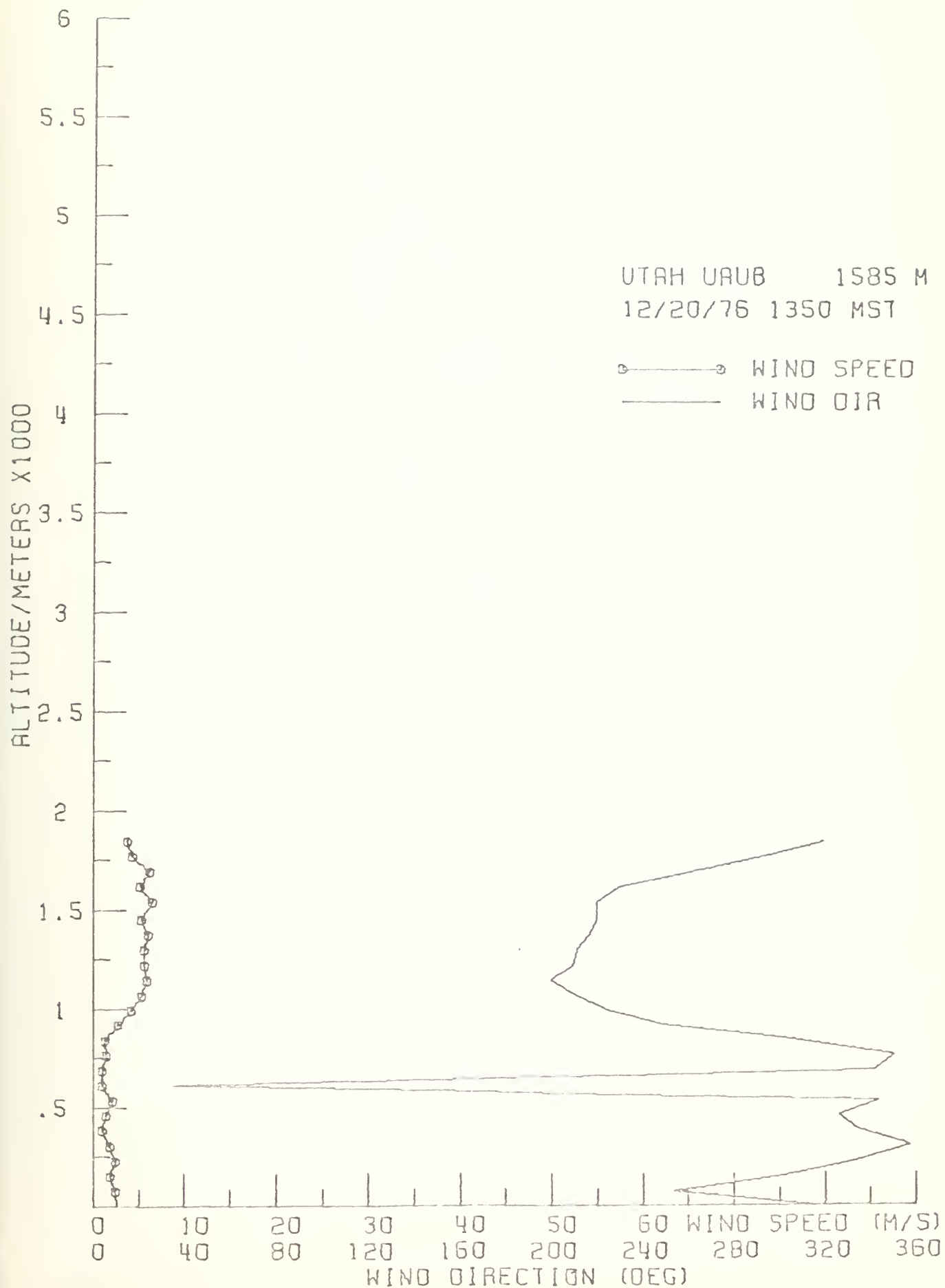




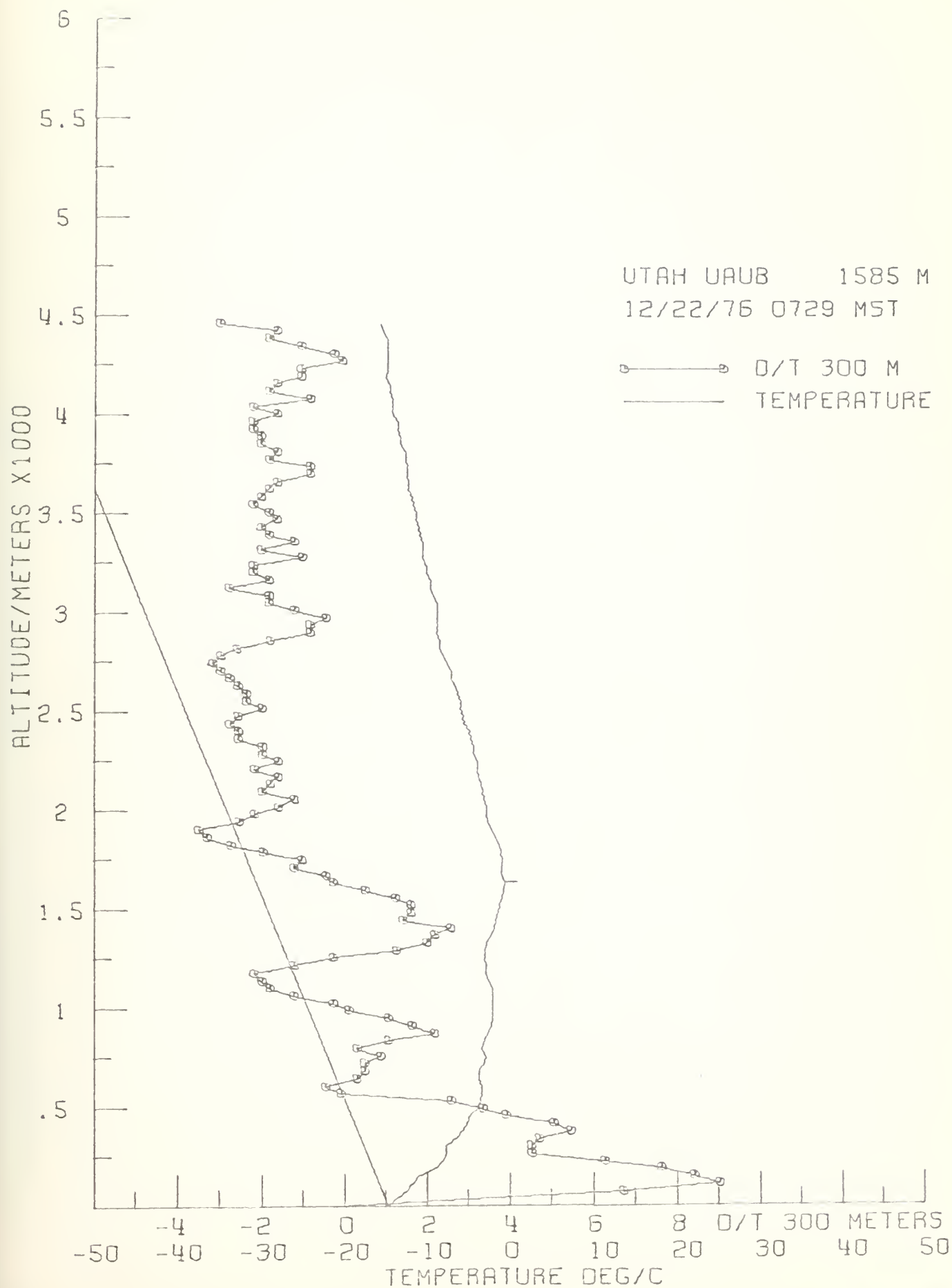






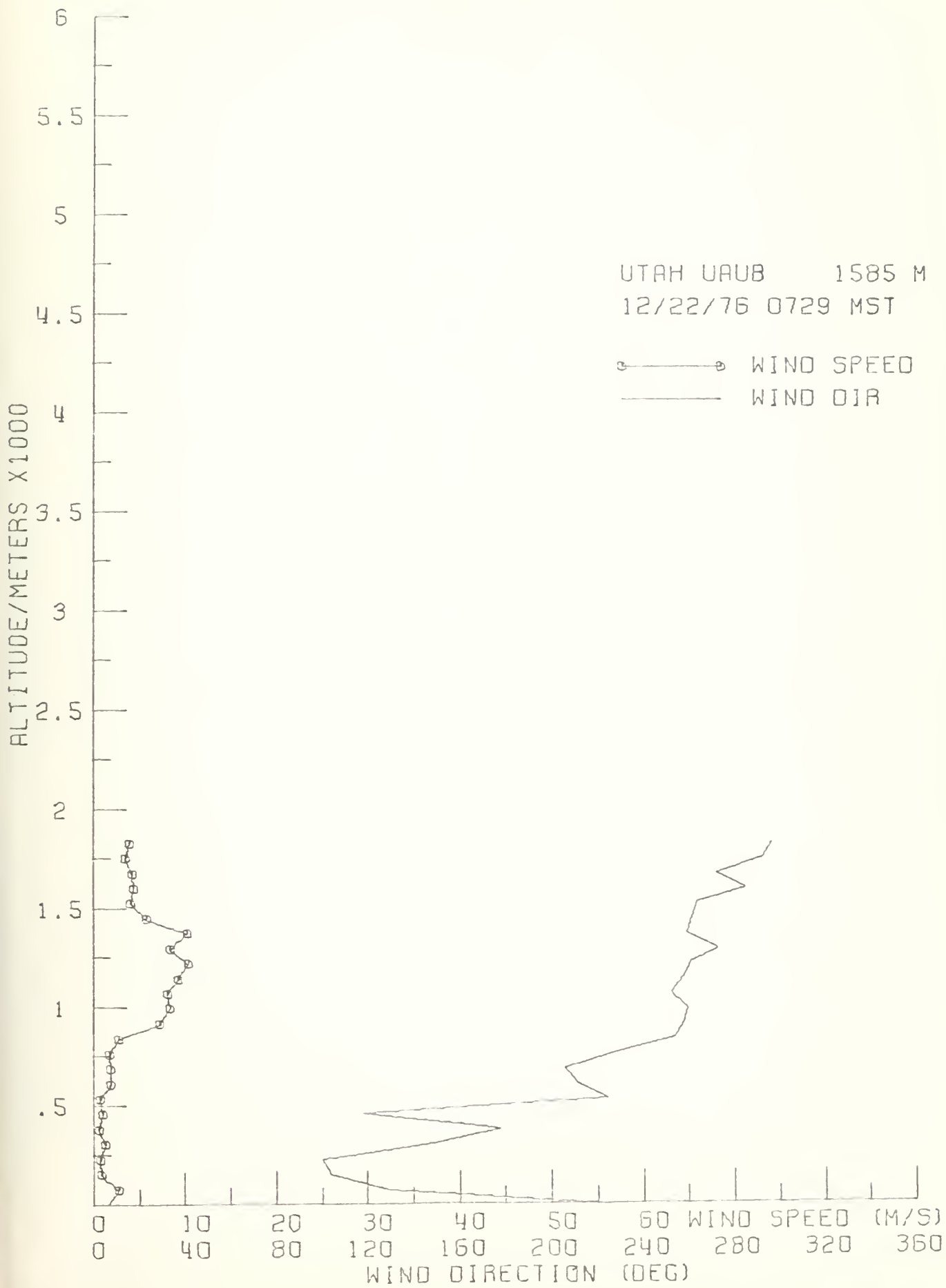




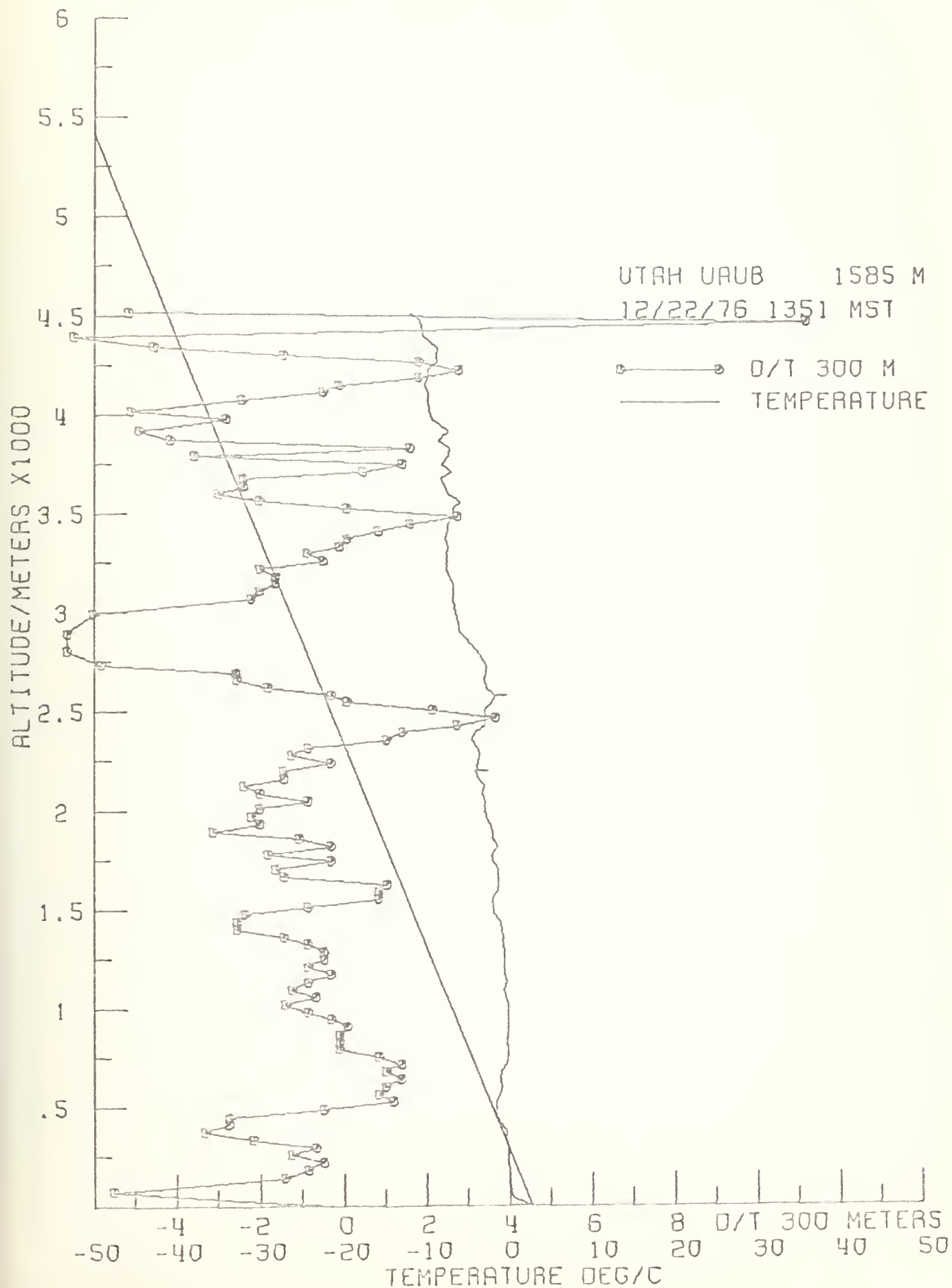




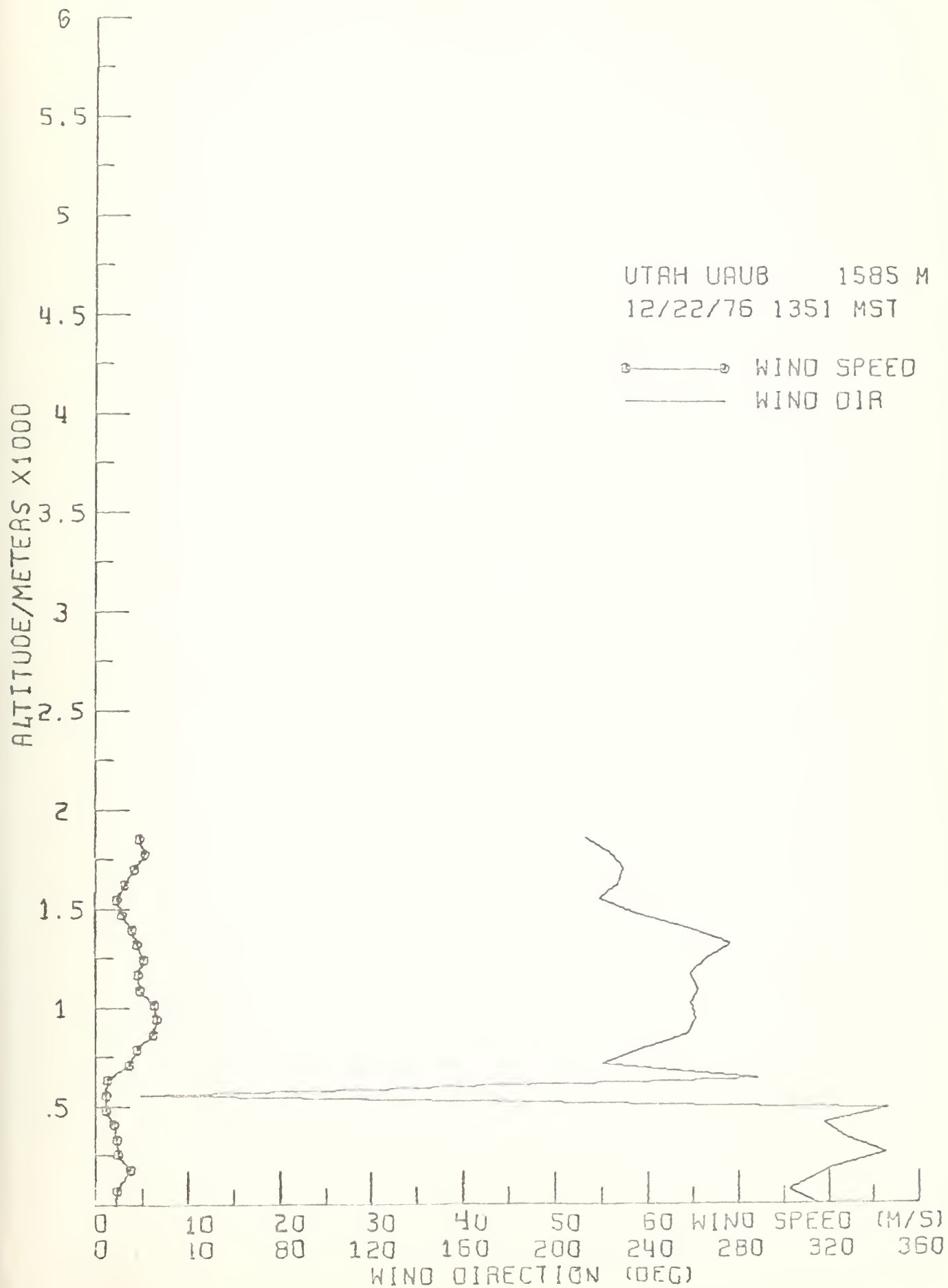




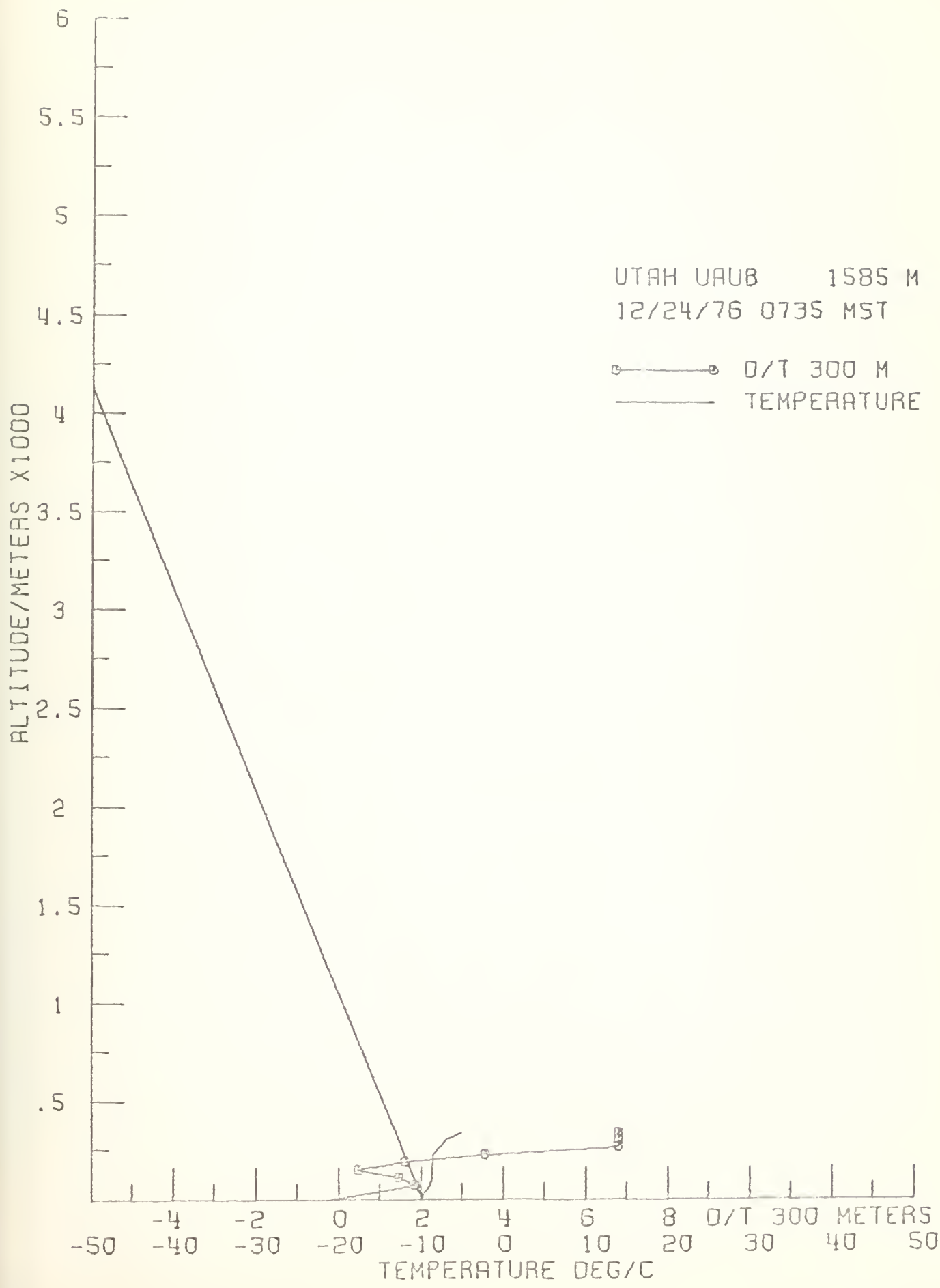






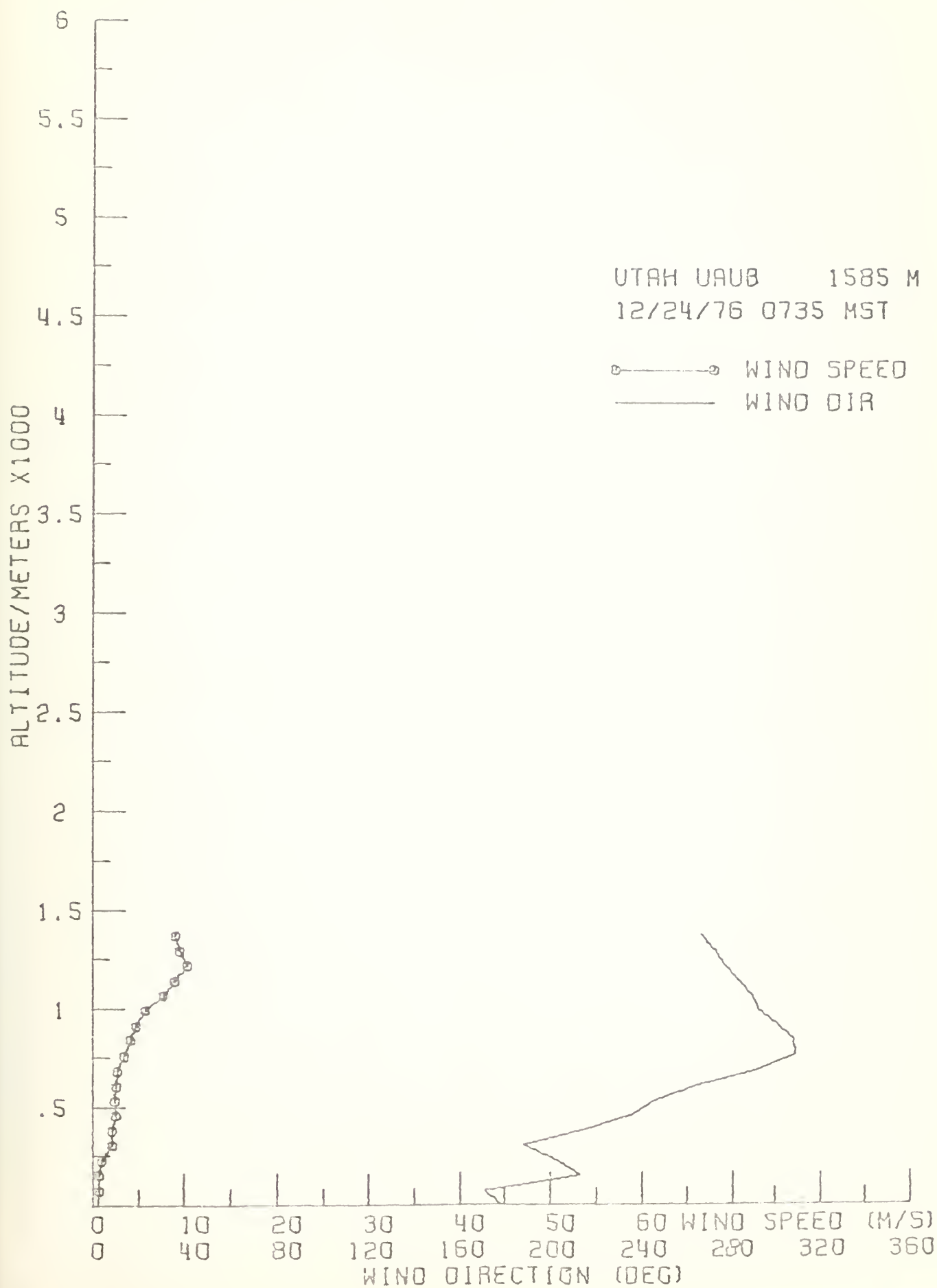




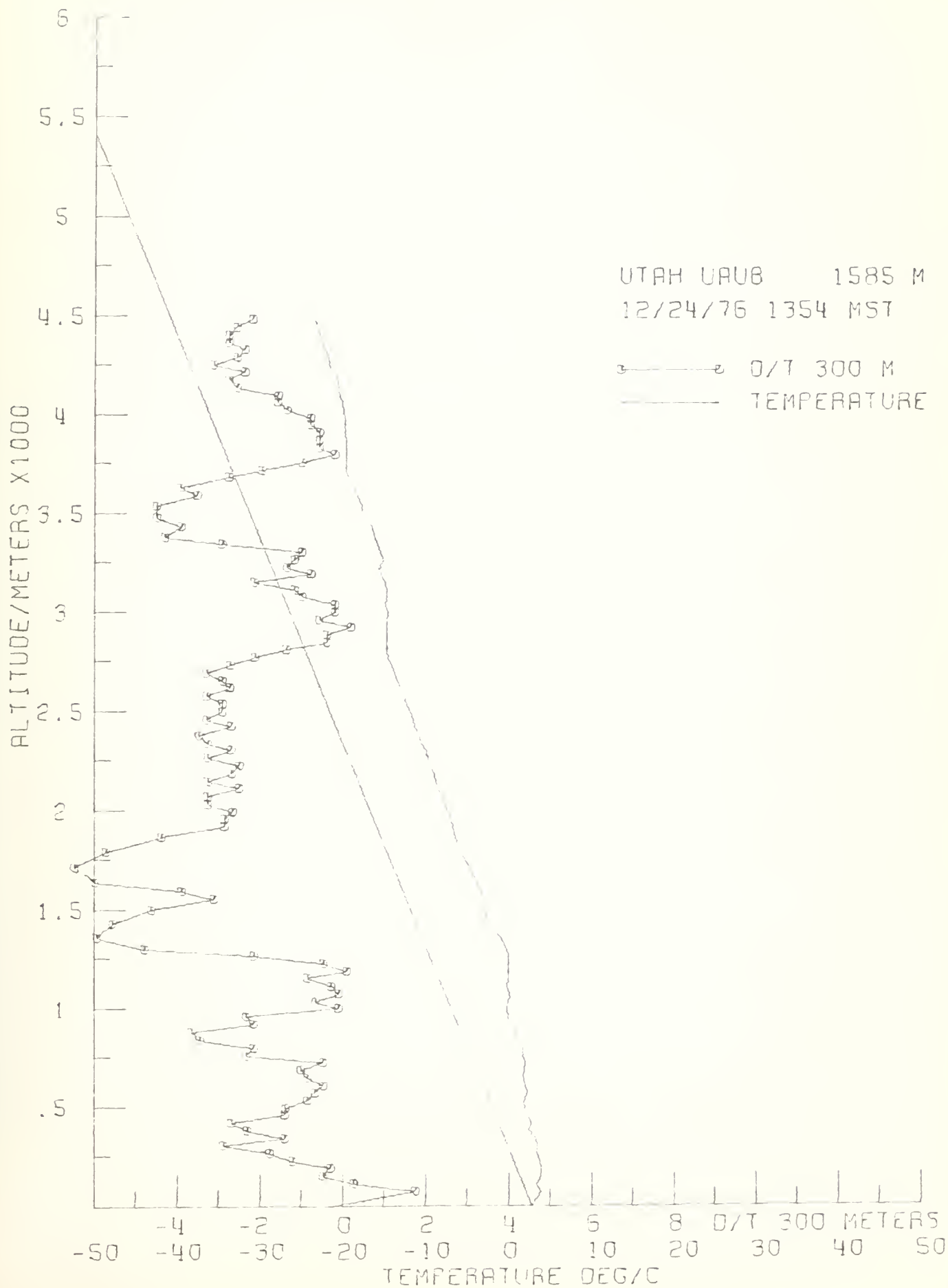




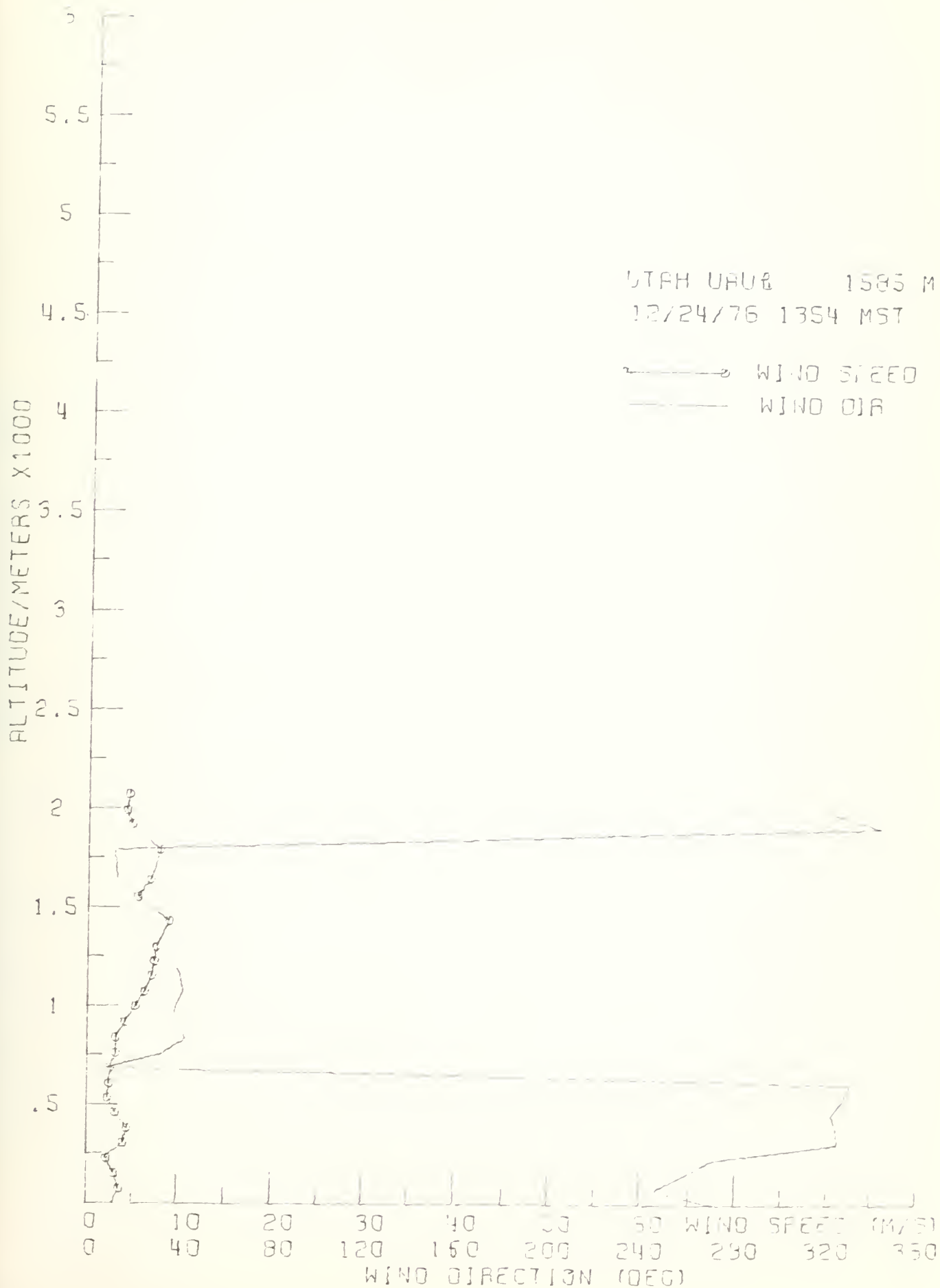




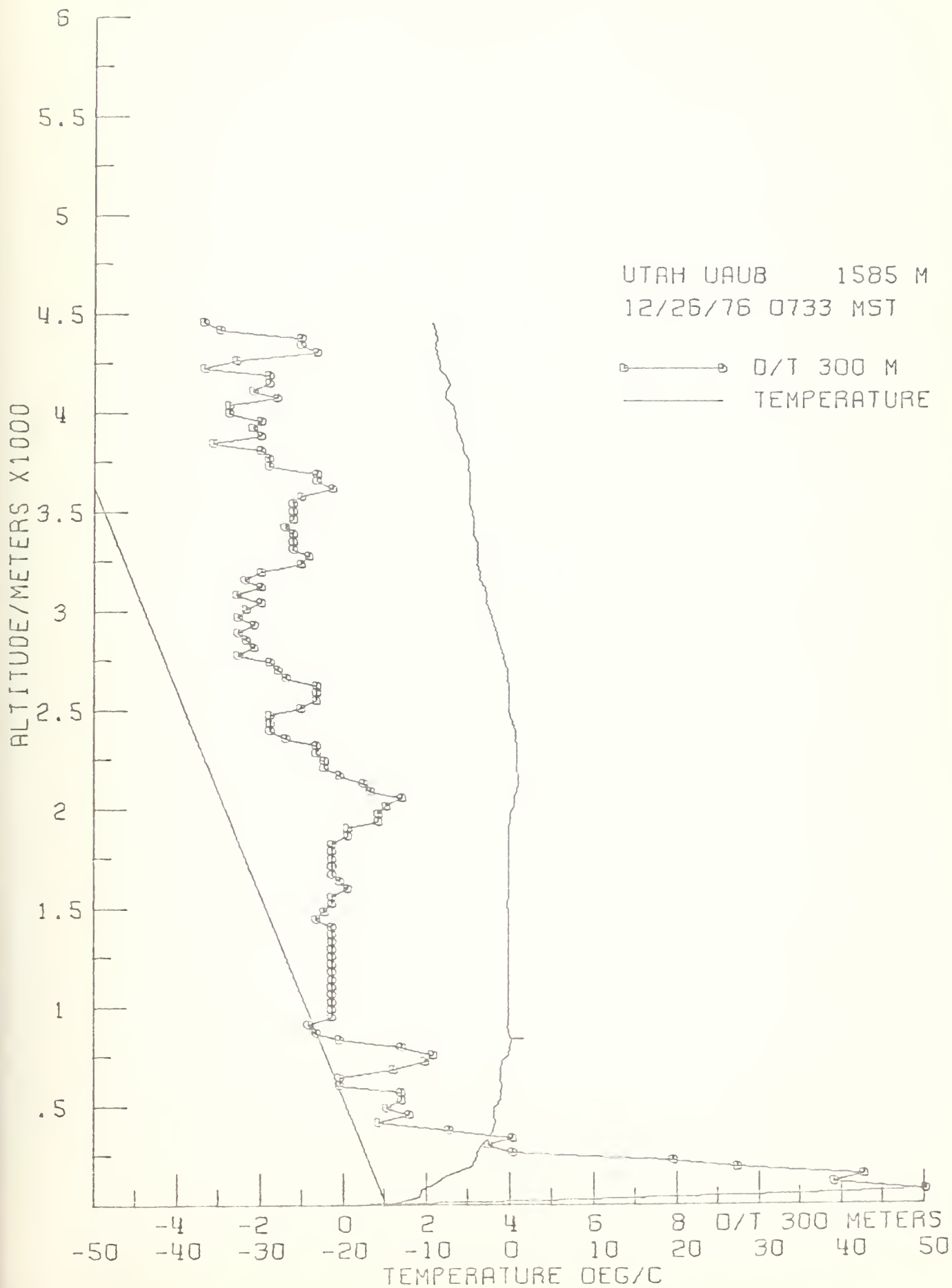






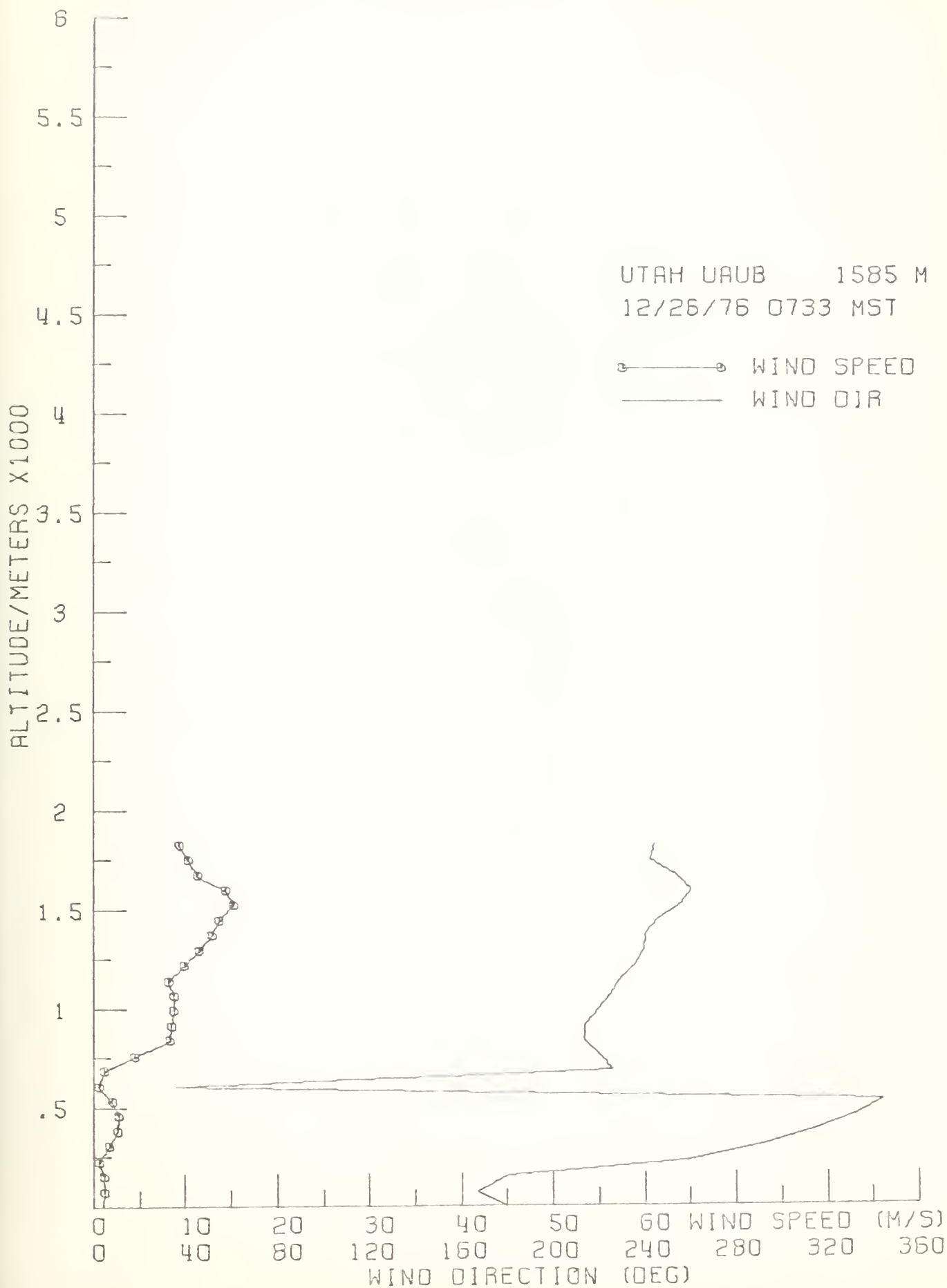




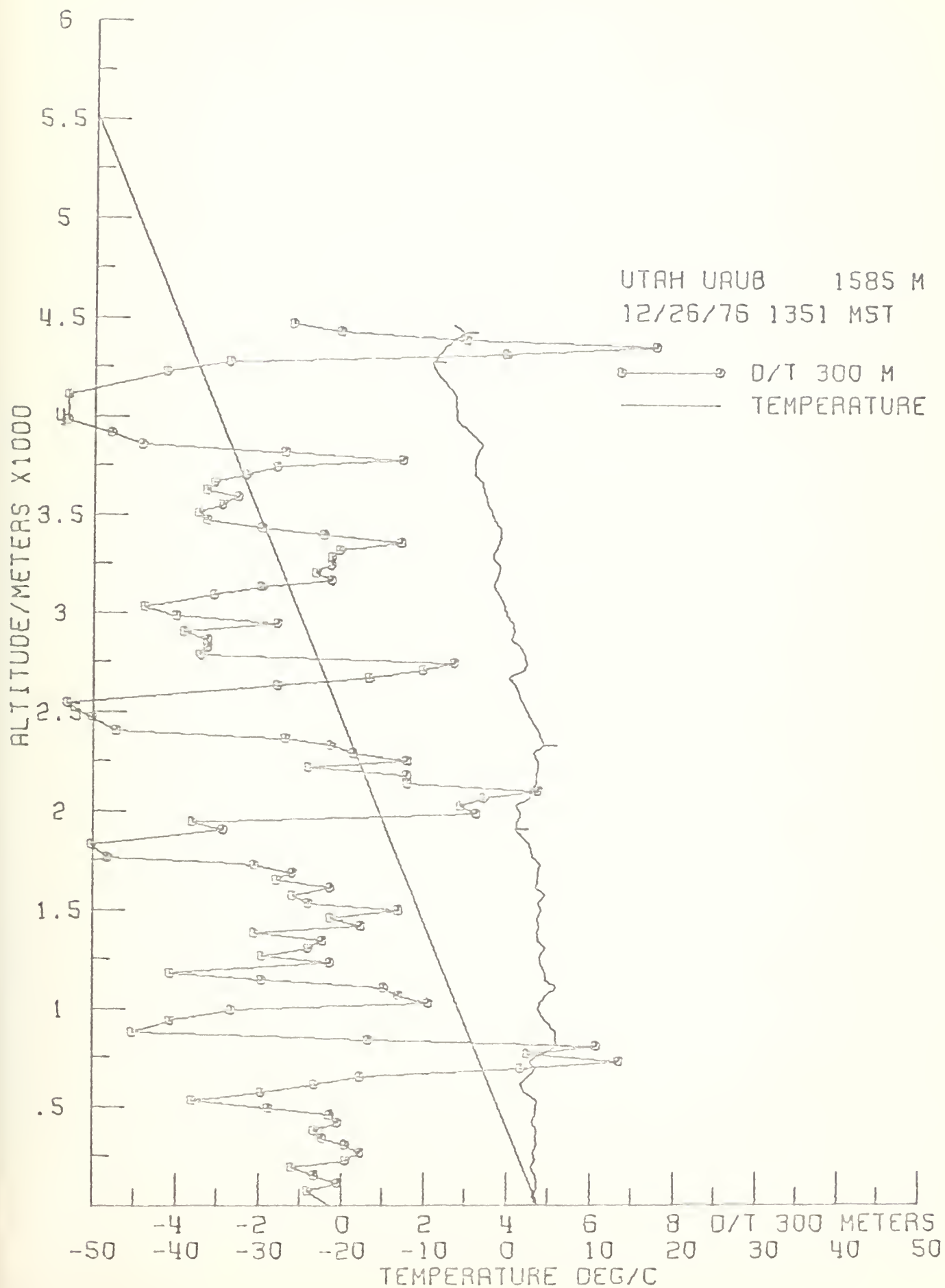




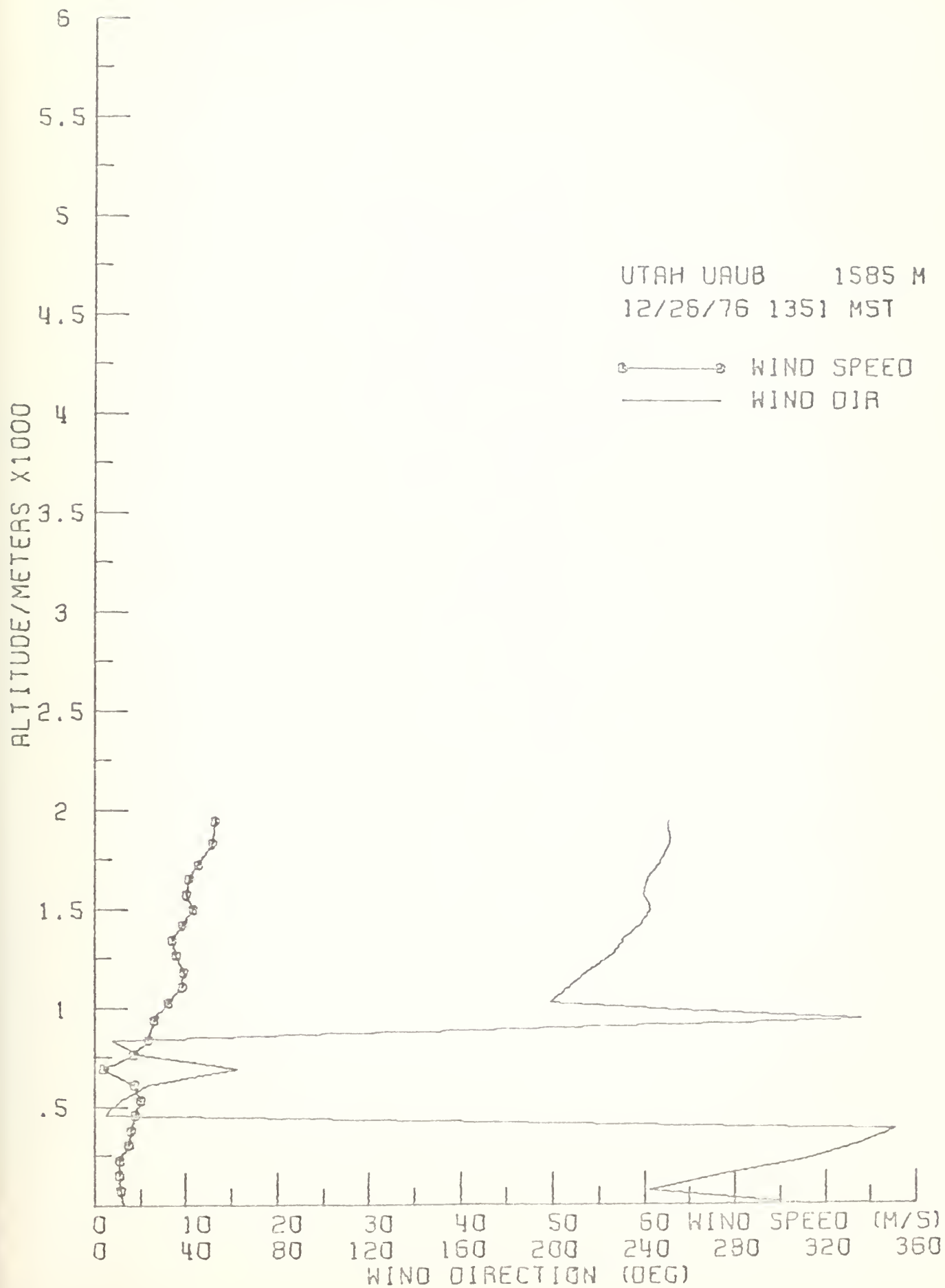




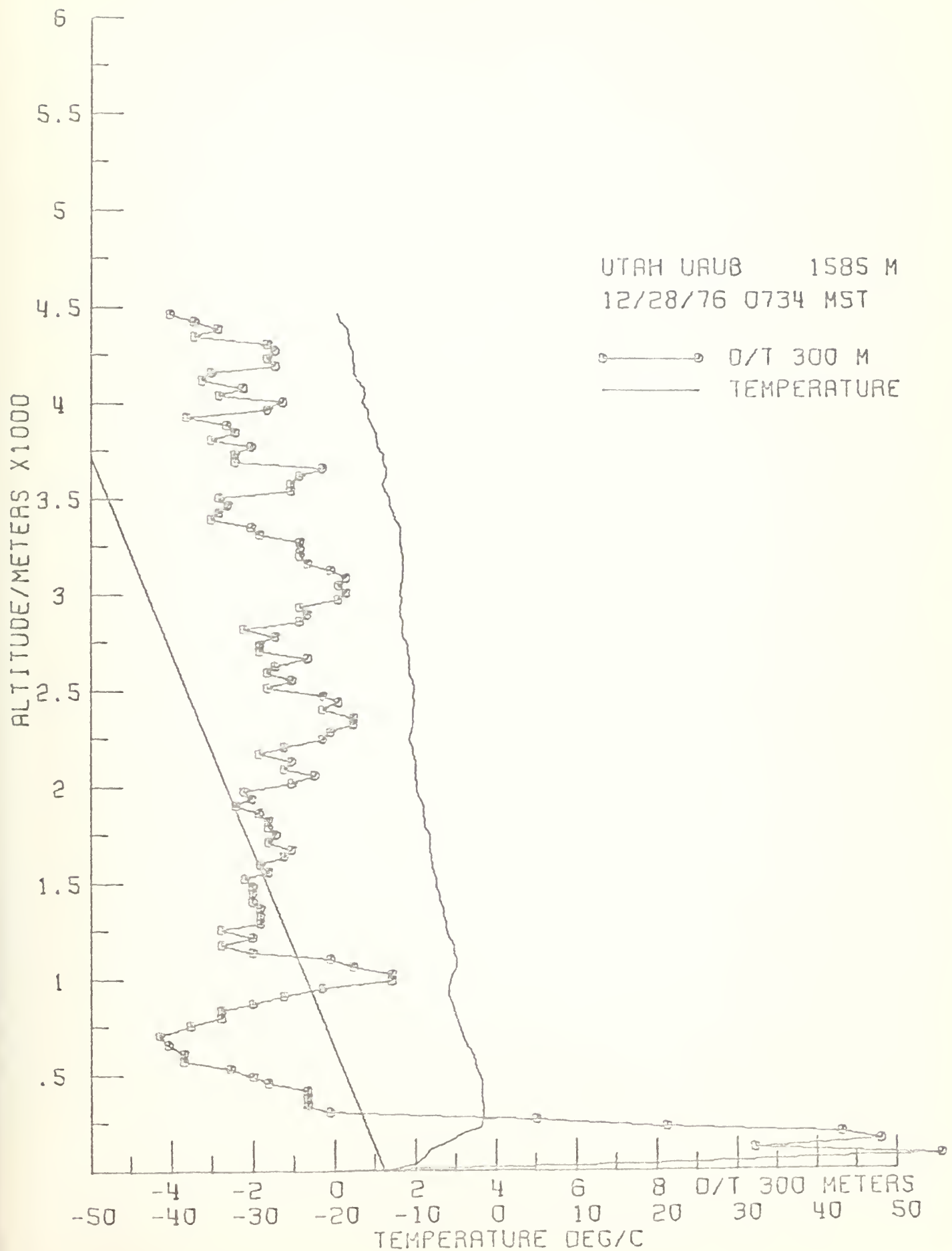






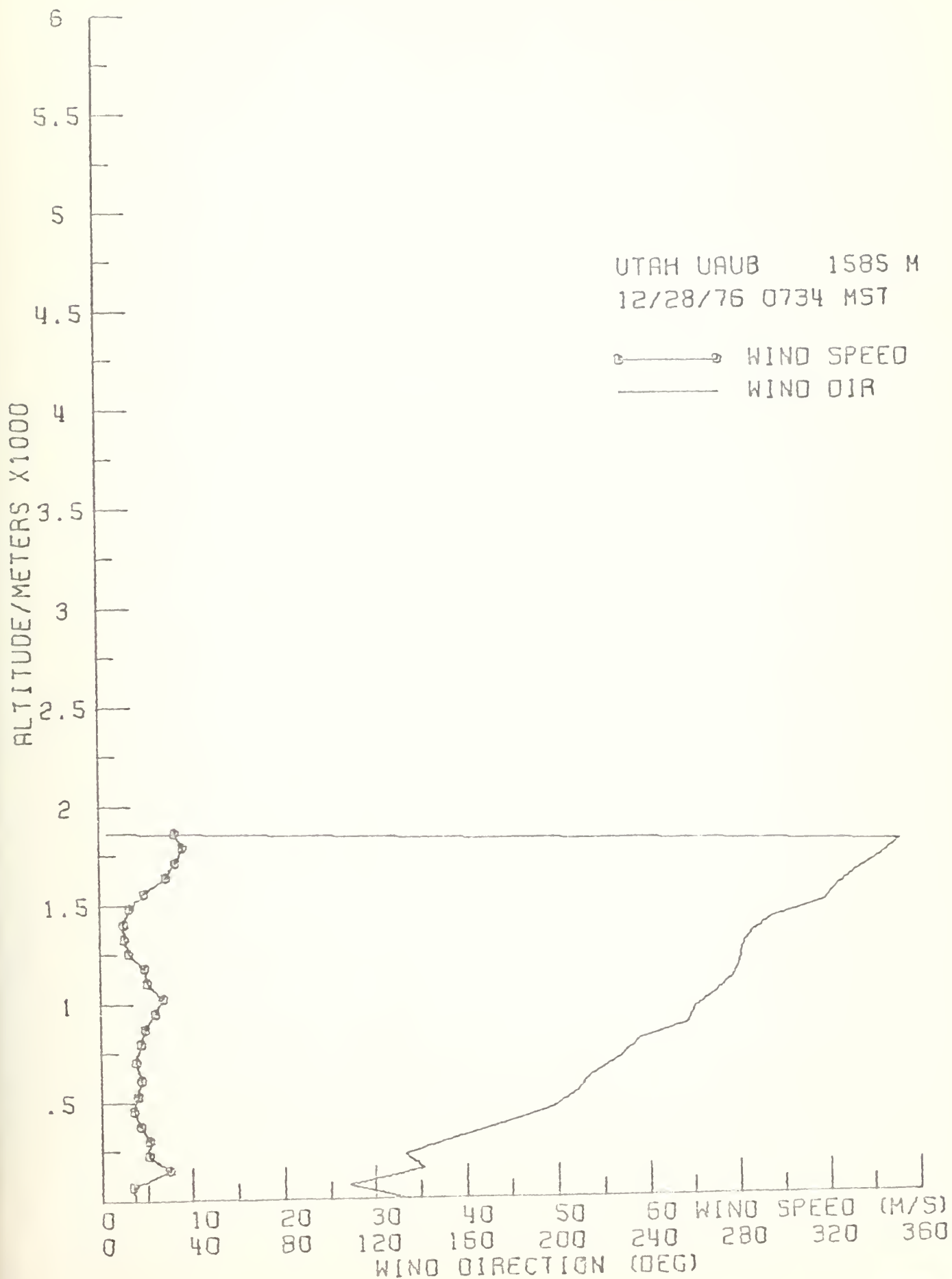




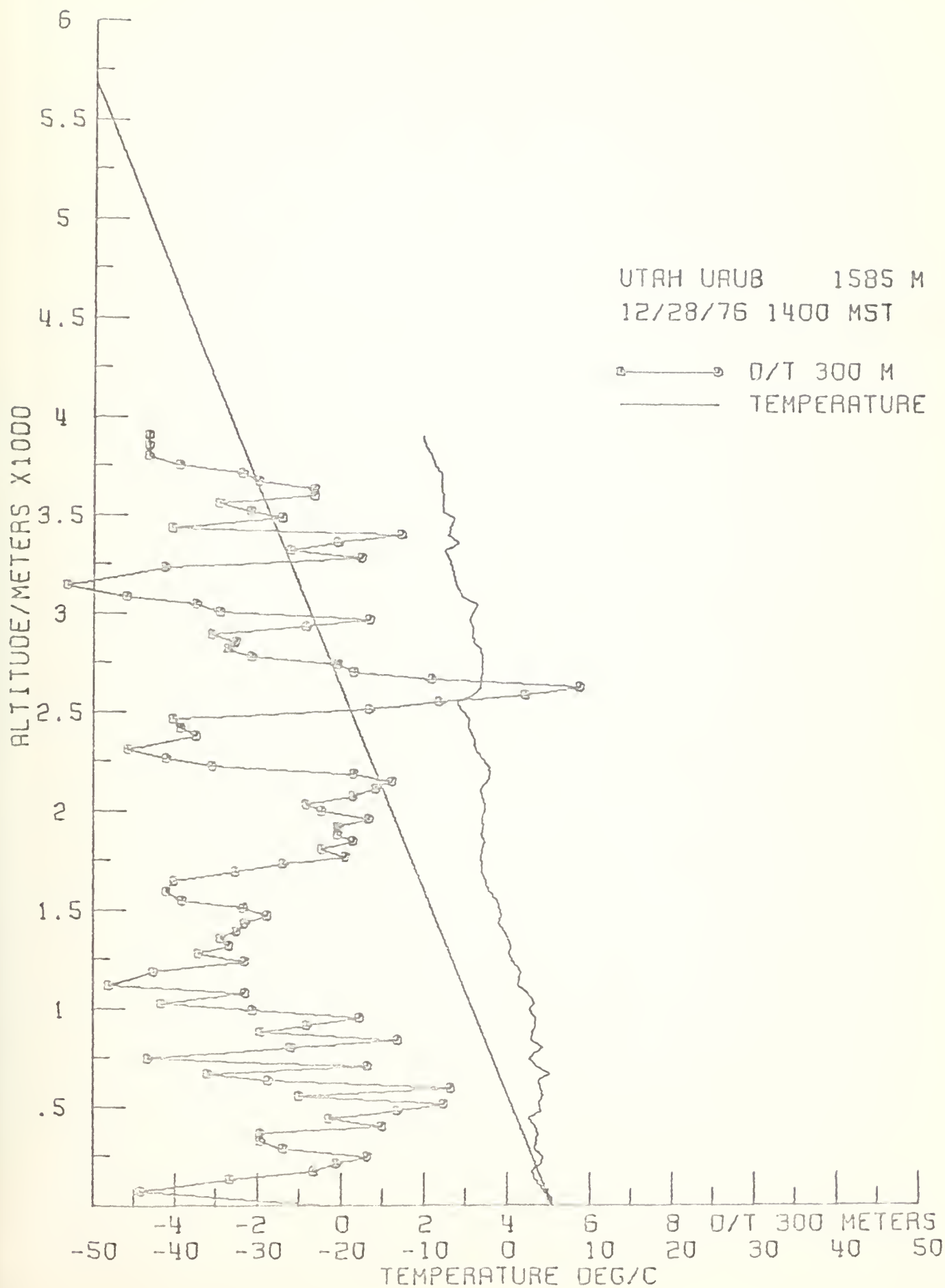




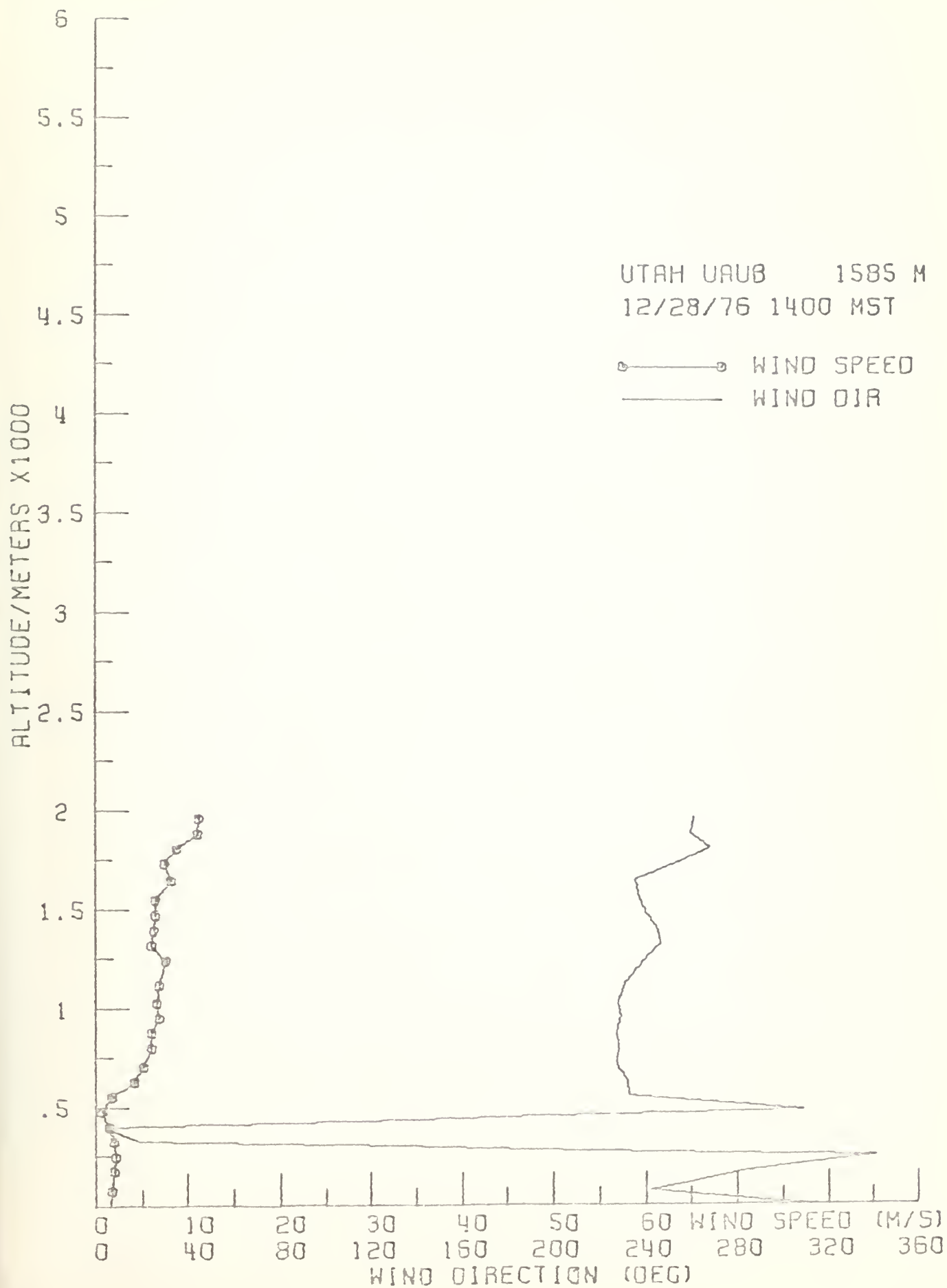




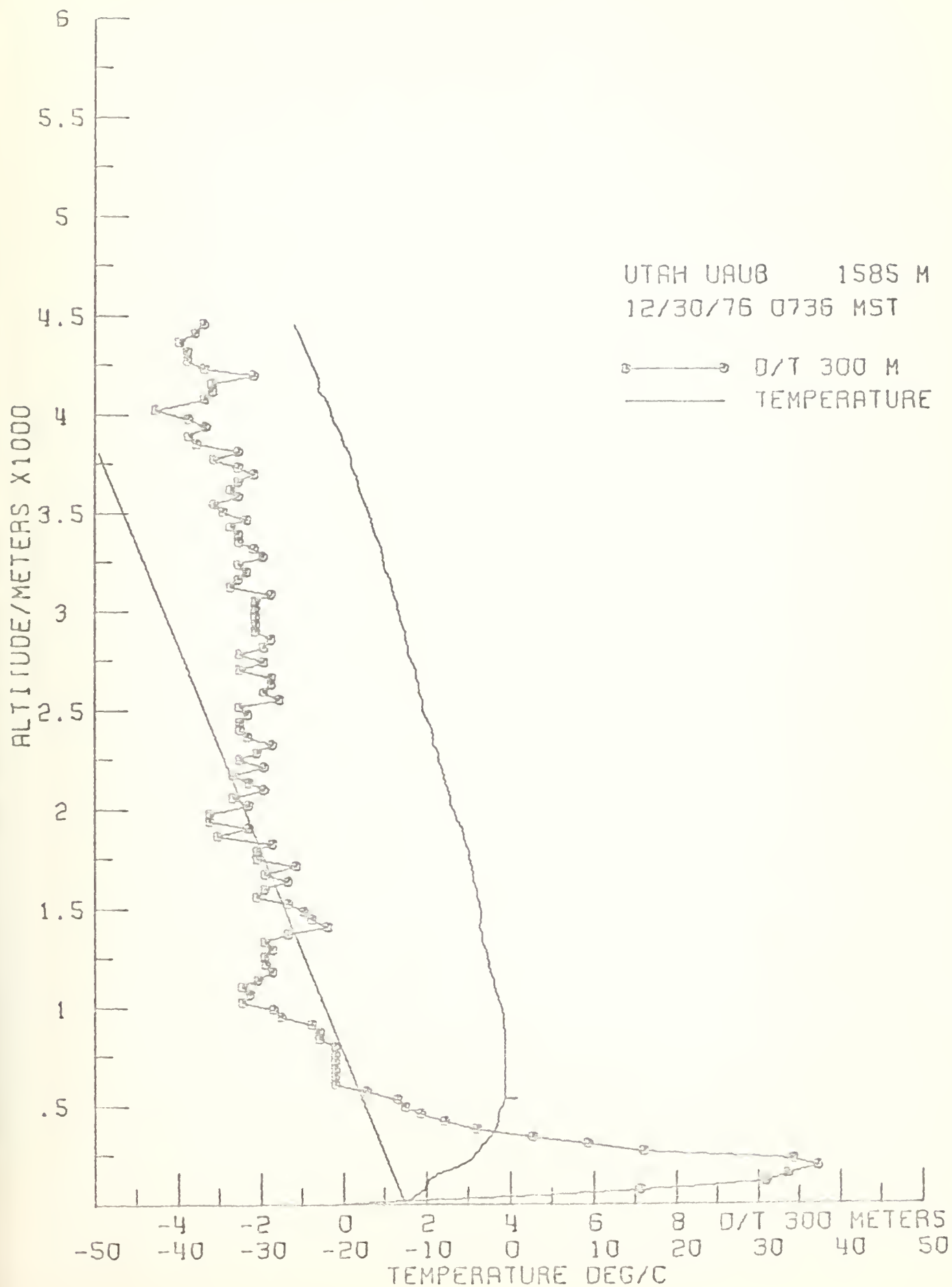






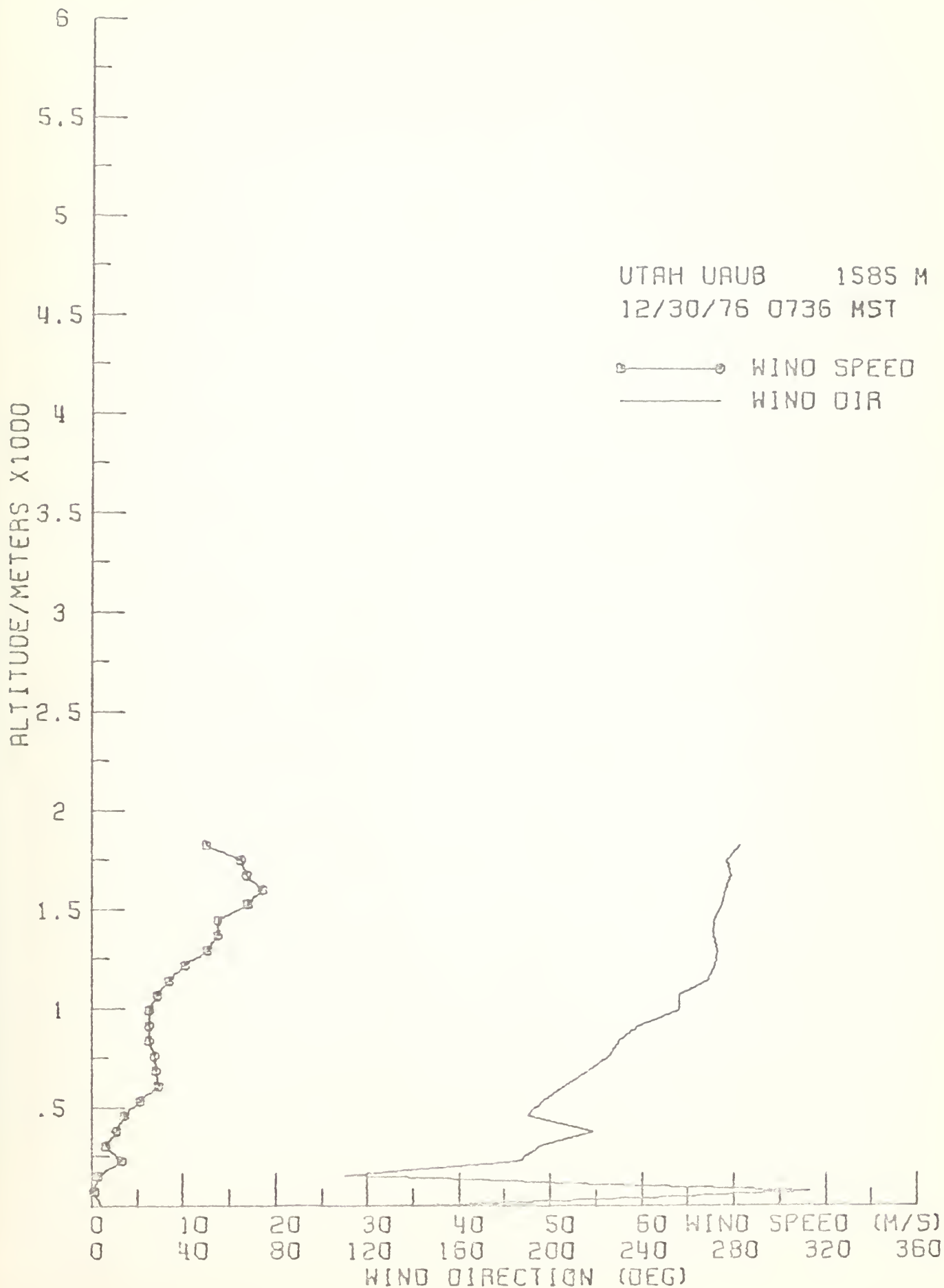




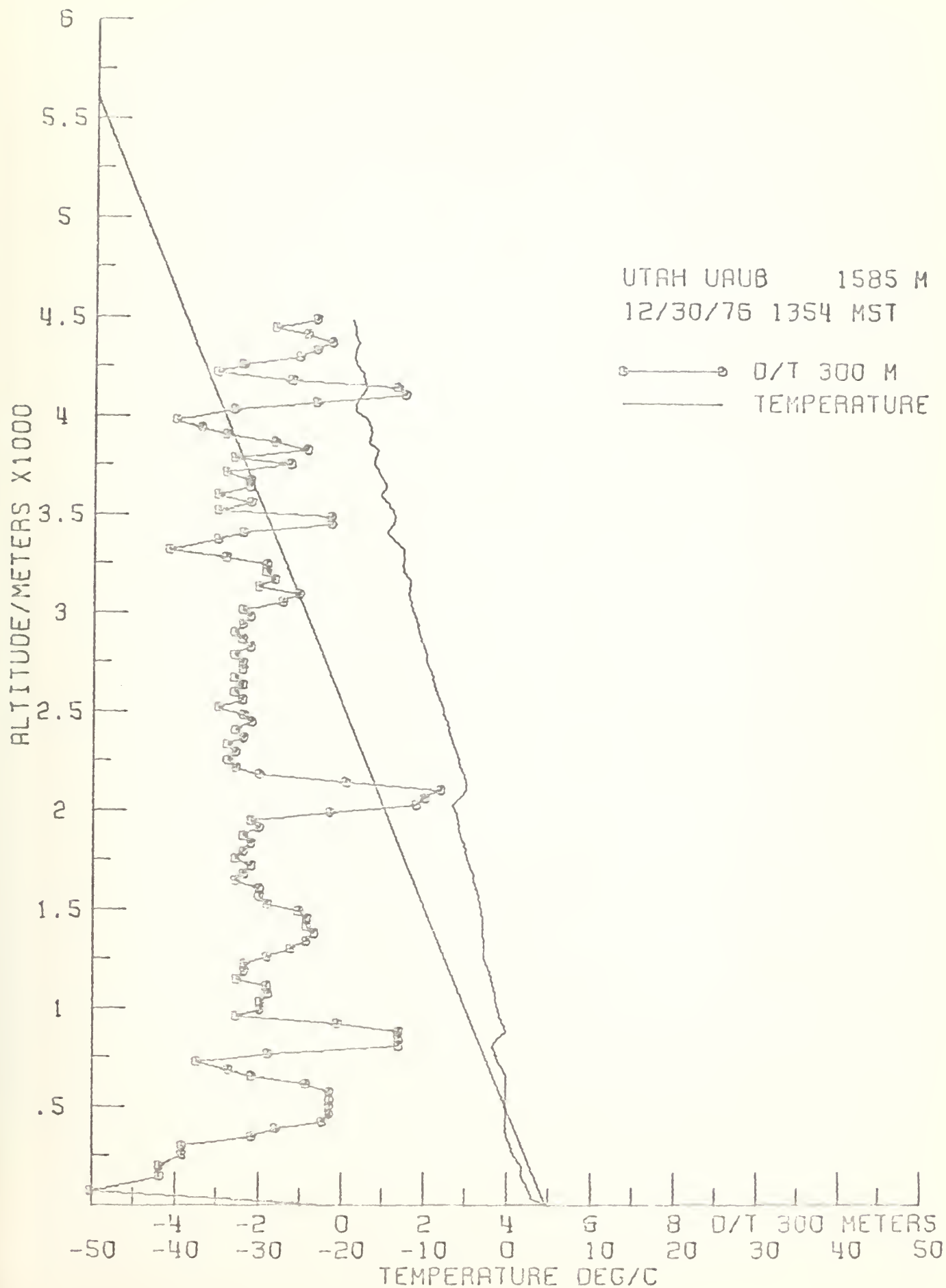




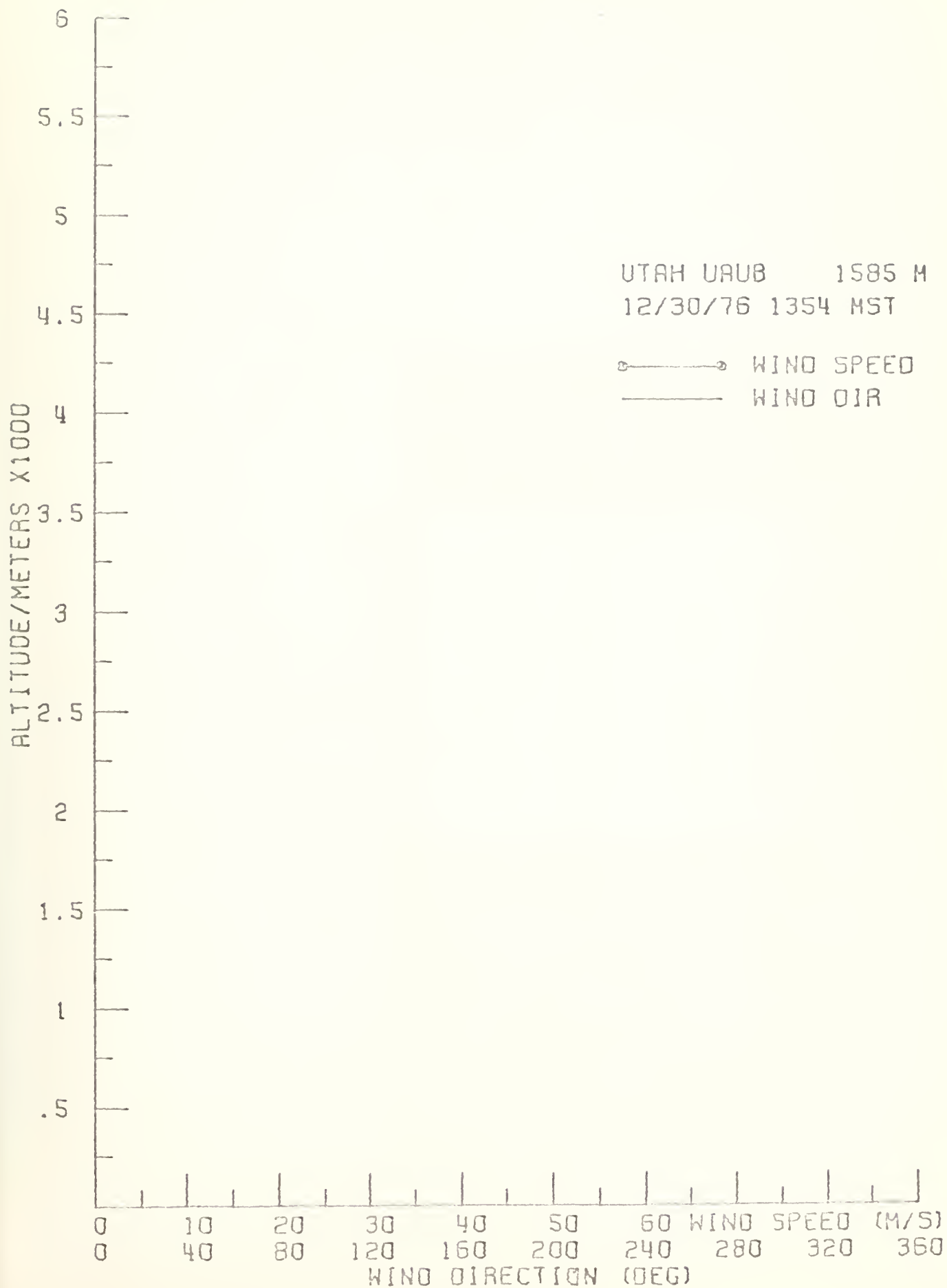














Form 1279-3  
(June 1984)

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